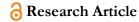
Journal of Research in Education and Pedagogy

ISSN 3047-7131 (online) & 3047-6410 (print) August 2025, Vol. 2, No. 3, pp. 346–361





Fluency Development Approach on Students' Reading Accuracy and Comprehension Level

Losel Mae S. Abellana^{1™}, Jeneifer C. Nueva¹

¹Bukidnon National High School, Bukidnon, Philippines

Abstract

Fluency Development approach (FDA), also called Fluency Development Lesson, is a useful approach to teaching reading fluency that involves modeling fluency reading, assisted reading, repeated reading, word study, performance reading, and home and school involvement. It assessed the reading accuracy level in Word Count Per Minute (WCPM) of students before and after exposure to FDA, identified the comprehension level of students before and after exposure to FDA, determined the significant difference in the reading accuracy level of the students before and after exposure to FDA, and ascertained the significant difference in the reading comprehension of the students before and after exposure to fluency development approach. This determined the effect of the FDA on the reading skill of the Grade 8 frustrated readers of Kalilangan National High School for the school year 2017-2018. The study used a pretestposttest experimental design, which involved the 38 respondents, identified based on the Diagnostic Reading Inventory test. Also, it utilized two instruments: The Fluency Accuracy: Assessment and Norms, focusing on the word count per minute (WCPM) and the Philippine Informal Reading Inventory (Phil-IRI) materials in assessing the accuracy and reading comprehension level of students. The results revealed that the reading accuracy and comprehension level of students showed a significant difference in the posttest results. Both reading accuracy and comprehension level of students improved in the posttest, but the improvement was not enough to reach the level required for Grade 8 high school students. Despite the limitations, it could still be concluded that the FDA helped improve students' accuracy and comprehension level.

Keywords: Accuracy, Comprehension Level, Fluency Development Approach, Frustration

☑ Correspondence Losel Mae S. Abellana loselmae.sarausa@deped.gov.ph

Received January 16, 2025 Accepted May 6, 2025 Published August 1, 2025

Citation: Abellana, L. M. S., & Nueva, J. C. (2025). Fluency development approach on students' reading accuracy and comprehension level. *Journal of Research in Education and Pedagogy*, 2(3), 346–361.

DOI: 10.70232/jrep.v2i3.69

© 2025 The Author(s). Published by Scientia Publica Media



This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial License.

1. INTRODUCTION

Fluency Development Approach (FDA), also called Fluency Development Lesson, is a useful approach in teaching reading fluency that involves modeling fluency reading, assisted reading, repeated reading, word study, performance reading, and home and school involvement. The (FDA) fluency instruction model was developed for use with students experiencing difficulties in fluency and learning to read. The National Reading Panel recognized it as a practical approach to fluency instruction. This approach involves reading short passages (poems, stories, or other texts) that students read and reread over a brief period. For less than an hour, the teacher and students work with the text where the teacher models reading the text for students (Rasinski, 2010).

Reading is a habit where students learn, gain knowledge, and develop new skills (Olivar, 2014). In secondary schools, it is expected that students' ability in reading is already at their expected grade level. However, it was found that there are still several of them who have difficulty reading words and passages. Thus, the common dilemma of reading is on fluency and comprehension. As a result, failure in reading



²Language and Literature Department, University of Southeastern Philippines, Davao City, Philippines

strongly influences learners' self-images and feelings of competency. Students who fail in reading often feel inadequate and ashamed.

According to the 2007 report from the National Assessment of Educational Progress (NAEP), although there have been gains in reading performance among students in grades four and eight, only about one in three is reading at a level considered proficient for their grade. In general, effective reading fluency instruction involves three main elements: accuracy, automaticity, and fluency. Accuracy refers to correct word identification, with a benchmark of about 95% accuracy indicating a suitable instructional level. This is commonly evaluated by calculating a student's reading speed in words per minute (WCPM), which also reflects their ability to derive meaning from text. To assess this interpretive aspect, a qualitative rubric is typically used.

Another important aspect of teaching fluency is developing automaticity in word recognition, where readers can recognize words effortlessly. This involves not only quick and accurate identification of words but also smooth and fast reading, though not necessarily with expression. In the beginning stages of reading, learners might be accurate but slow and struggle with word recognition. With ongoing reading practice, however, their ability to recognize words becomes faster, more automatic, and easier.

The third essential aspect of reading is fluency. Hasbrouck (2006) emphasized that increased opportunities for practice, consistent support, and structured oral reading activities contribute significantly to the development of reading fluency. Likewise, Kuhn and Rasinski (2007, p. 204) noted that "fluency can make a difference in a student's success as a reader." When fluency and comprehension issues are not properly addressed, they become obstacles to reading development and are linked to declining student reading performance in schools (Samuels, 2006). Failure to reach the expected level of reading fluency at a given grade can greatly hinder a student's ability to perform well academically (Dudley, 2005). Furthermore, results from the National Achievement Test (NAT) reveal a continuous decline in the performance of public high school students, which lags that of public elementary students. Data from the Department of Education for School Year 2011–2012 indicate that the average NAT score for high school students was only 48.9%, significantly below the 66.79% average achieved by elementary pupils. This pattern has persisted over the past five years, as noted by Ordanio (2013).

The DepEd NAT result was corroborated by the data gathered at Kalilangan National High School performance indicators in the National Achievement Test (NAT) for 2015, where English as a subject area got the lowest mean percentage score of 42.98%. The Diagnostic Reading Inventory conducted within 2017-2018, almost 16% of the grade 8 students were considered frustrated readers. Currently, the results of the Diagnostic Reading Inventory for grade 8 students at Kalilangan National High School indicate that 45 out of the total number of students from different classes are classified as frustrated readers, marking the baseline for this study. It is in this context that the researcher became interested in using the FDA to address students' reading problems.

In particular, the aim is to assess the effectiveness of the Fluency Development Approach for Grade 8 readers at Kalilangan National High School who are frustrated. Thus, the following research questions were formulated:

- 1. What is the reading accuracy level of students before and after exposure to the Fluency Development Approach?
- 2. What is the reading comprehension level of students before and after exposure to the Fluency Development Approach?
- 3. Is there a significant difference in the reading accuracy level of the students before and after exposure to the Fluency Development Approach?
- 4. Is there a significant difference in the reading comprehension of the students before and after exposure to the Fluency Development Approach?

The study was conducted to determine the effect of the Fluency Development Approach in improving the reading accuracy and reading comprehension level of the identified frustrated readers. It focused on the pre- and posttest in both accuracy in word count per minute (WCPM) and comprehension.

The conduct of the study commenced within the fourth grading period on a twice-and thrice-a-week schedule for 15 sessions. The reading accuracy (WCPM) test and reading comprehension test were given

to the respondents before and after the conduct of the FDA within the 15 reading meeting sessions. The study was limited only to the Grade-8 frustration reader students of Kalilangan National High School in the school year 2017-2018 who were identified through the diagnostic reading inventory pretest. This study did not include other aspects of reading instruction, such as automaticity, prosody, and reading speed, which are also integral components of fluency. Another limitation involved the potential for bias or hesitation among respondents when completing the questionnaire. Despite assurances from the researcher regarding the confidentiality of their responses, it was noted that some participants left certain items unanswered. This incomplete data may have had an impact on the overall outcomes of the intervention. Although the researcher assured confidentiality of the data, it was observed that some of the respondents did not answer all the questions presented. Consequently, it could affect the result of the intervention.

Finally, this paper used only the materials and instruments for FDA intervention, which were from the Grade 8 curriculum guide, module, and the stories on the internet. They covered the fourth-quarter lessons, which were selected based on the readability test. The duration of the intervention program might also affect the result of the study.

2. LITERATURE REVIEW

2.1. Fluency Development Approach on Students' Reading Accuracy and Comprehension

Numerous studies have examined how fluency interventions, such as the Fluency Development Lesson (FDL), influence reading accuracy and comprehension. For instance, Evanchan (2015) conducted a quasi-experimental study titled "The Development of Fluency and Comprehension Literacy Skills of Second Grade Students by Providing Regular Use of the Fluency Development Lesson", involving 22 second-grade learners. The results indicated significant improvements in reading comprehension, increased words correct per minute (WCPM), and development in various dimensions of fluency. Additionally, the study found a strong link between accurate word recognition and comprehension as measured through retelling, suggesting that consistent implementation of FDL has a beneficial effect on student reading performance.

In another study, Zimmerman and Kruse (2013) integrated FDL with graphic novels as a classroom intervention. Both teachers and students engaged in daily 10–15-minute sessions using selected texts, where modeling was done by a capable individual. The results indicated that novice readers learned to interpret both text and illustrations as distinct yet complementary elements of reading. The use of graphic novels helped improve visual literacy and supported fluency instruction. The study emphasized that fluency significantly affects comprehension and academic performance, especially during students' transitions from primary to upper grade levels. Ultimately, the findings underscore the value of fluency instruction and suggest that graphic novels, when paired with FDL, can effectively support struggling readers across various grade levels.

Spooner, Baddeley, and Gathercole (2010) conducted a study titled "Can reading accuracy and comprehension be separated in the Neale Analysis of Reading Ability?" which explored the relationship between decoding skills and comprehension as measured by the Neale Analysis of Reading Ability (NARA). The research involved 326 British students aged 7 to 8. A key finding revealed that performance in NARA comprehension tasks was strongly influenced by decoding abilities—students with weaker decoding skills tended to score lower on comprehension, suggesting that decoding is a critical foundation for understanding text in the context of NARA. Another result showed that 32% of children who achieved low NARA comprehension scores exhibited high listening comprehension. The results of the study show that the NARA can underestimate the comprehension ability of children with weak decoding skills; the decoding and comprehension measures of the NARA cannot be separated.

Furthermore, the Read Naturally program as a fluency intervention claimed that the use of Read Naturally could give more significant gains to reading fluency and accuracy. The Read Naturally program is being studied, which provides a method to improve reading fluency with accurate reading (Hudson et al., 2005). Many struggling readers face difficulties with fluency and often spend limited time engaged in reading. The Read Naturally program addresses this issue by incorporating three effective strategies to enhance fluency: teacher modeling, repeated reading, and regular progress monitoring.

For example, the study by Tucker and Jones (2010), titled "Response to Intervention: Increasing Fluency, Rate, and Accuracy for Students at Risk for Reading Failure," explored the effectiveness of Response to Intervention (RTI) in enhancing the reading fluency of fourth-grade students identified as at risk for reading difficulties. The research included two student groups, with one group receiving supplemental instruction using the Read Naturally program for 30 minutes daily, four days a week, alongside their standard reading curriculum. After a 10-week intervention period, the findings showed notable improvements from pretest to posttest in reading accuracy, rate, and fluency. These gains were interpreted as statistically significant, with results showing a p-value of less than .05.

Christ and Davie (2009), in their study titled "Empirical Evaluation of Read Naturally Effects: A Randomized Control Trial," investigated the impact of the Read Naturally program on 109 third-grade students identified as low-performing readers. The participants were divided into two groups: one group received daily 30-minute sessions of Read Naturally instruction, five times a week for ten weeks, while the control group continued with standard classroom reading instruction. The findings indicated that students who participated in the Read Naturally intervention demonstrated significantly higher gains in both reading accuracy and fluency compared to those in the control group. The improvements were statistically significant, confirming the program's effectiveness as a meaningful academic intervention.

In another study, Mellard, Fall, and Woods (2013) examined the relationship between oral reading fluency and overall reading competence among adult learners in a study titled "Relation and Interactions Among Reading Fluency and Competence for Adult Education Learners." This research involved 276 adult participants from both primary and secondary education programs. The study specifically analyzed how total word rate and word error rate interacted with two indicators of reading competence: passage comprehension and functional reading. Results revealed that in tasks involving passage comprehension, the negative influence of word error rate was reduced in learners who read more words overall. Conversely, in functional reading tasks, higher word error rates had a more pronounced negative effect among the same group. These findings suggest that the influence of fluency components—such as reading speed and accuracy—varies by reading task, underscoring the need for tailored instructional approaches to support adult literacy development effectively.

In a related study, Rasinski (2010), through his work "Creating Fluent Readers," discovered that students in the experimental group demonstrated increased oral reading speed, as evidenced by pre- and post-intervention scores from informal reading inventories. Beyond the quantitative results, teachers also reported significant improvements in their students' reading skills based on classroom observations. A teacher noted that students exhibited more fluent reading, improved word decoding skills, and an increased enthusiasm for reading compared to their performance before the intervention. Struggling readers demonstrated significant growth, especially when they engaged with poems or stories, they found enjoyable. The study also highlighted increased student participation during lessons, with many eager to read and actively take part to avoid being left out.

In contrast, the study titled "The Relationship of the Component Skills of Reading to Performance on the International Adult Literacy Survey (IALS)" by Strucker, Yamamoto, and Kirsch (2007) explored whether specific levels of proficiency in reading components could predict higher reading comprehension. The research involved 950 adult learners selected through convenience sampling. The findings emphasized the significance of reading speed and accurate word decoding as essential contributors to strong reading comprehension. The study indicated that when students can accurately decode words, improved comprehension is likely to follow. Additionally, the results highlighted that foundational reading skills—such as word recognition and vocabulary knowledge—remain crucial not only in academic settings but also in practical, real-life literacy tasks. These skills are therefore central to both academic success and everyday reading experiences, potentially enhancing student engagement with reading.

2.2. Strategies in Reading Comprehension

There are studies that use different strategies involving the improvement of reading comprehension. Some factors and interventions contribute to the changes in comprehension level by students. Sanford's (2015) study, "Factors that Affect the Reading Comprehension of Secondary Students with Disabilities," investigated the cognitive and motivational influences on reading comprehension among 158 students with disabilities

(SWD) in grades 9 to 12 from two large urban high schools in Northern California. The study identified intrinsic motivation, study habits, and extrinsic motivation as significant predictors of reading comprehension. Notably, study habits and extrinsic motivation were particularly predictive when these factors were at lower levels. The research also examined the roles of working memory, vocabulary, prior knowledge, word recognition, reading strategies, and motivation to read. The findings confirmed that various cognitive and emotional factors influence the reading comprehension of secondary students with disabilities (SWD). Gaining insight into the significance of these factors can help inform the creation of more effective teaching approaches. One such strategy is the application of multi-sensory direct instruction focused on word recognition and vocabulary, which educators can implement to help overcome reading challenges in this population.

Furthermore, White's (2012) study, "A Longitudinal Study of Reading Comprehension Achievement from Grades 3 to 10: Investigating Stability, Cumulative, and Compensatory Models," explored how different models explain the development of reading comprehension. The research involved two groups of 15-year-old high school students from a sample of 137 participants. Results showed that reading comprehension tends to remain stable over the years, with significant implications for less proficient readers. Notably, many students who struggled with reading in Grade 10 had already exhibited poor reading skills as early as Grade 3, suggesting that earlier identification—and potentially even earlier than Grade 3—may be possible and beneficial.

The study emphasized the importance of early intervention, especially since weaknesses in vocabulary were found to significantly contribute to comprehension difficulties. Even when vocabulary was controlled, problems in identifying details and main ideas persisted among poor comprehends. Supporting these findings, earlier studies (Fuchs & Fuchs, 2006) showed that many children with reading difficulties could achieve grade-level proficiency with early and intensive intervention. In contrast, delayed remediation tends to be less effective and more challenging, as also highlighted by Roberts et al. (2008) and Shaywitz et al. (2008).

Cekiso (2012), in the study titled "Reading Comprehension and Strategy Awareness of Grade 11 English Second Language Learners," investigated how reading strategy instruction affects learners' comprehension skills. The research involved 60 Grade 11 students and used a quasi-experimental design with pretest and posttest measures. Results showed that students who received explicit instruction in reading strategies achieved significantly higher scores—both statistically and practically—on comprehension assessments compared to those in the control group. The findings underscore the effectiveness of direct strategy instruction in enhancing learners' ability to apply reading strategies.

In a related study, Cotter (2012) explored how "Reading Fluency Strategies" can support the improvement of reading comprehension among students. The study highlights the critical link between fluency and comprehension, emphasizing repeated reading as a central intervention approach. According to Neddenriep et al. (2010, as cited in Cotter, 2012), repeated reading paired with guided practice, feedback, and modeling contributed to noticeable gains in students' comprehension. The study advocates for the integration of fluency-enhancing strategies in reading instruction, reinforcing the idea that boosting fluency directly supports better comprehension outcomes.

Biemiller and Boote (2006), in their study titled "An Effective Method for Building Meaning Vocabulary in Primary Grades," explored the use of repeated reading as a strategy to enhance vocabulary development among young learners. The study uses primary-grade children as the subjects. The research findings showed that repeated story readings, along with explanations of word meanings, increased vocabulary growth. In this case, repeated readings and read-aloud are of help. Frustrated readers in high school are very left behind in the level of competency they are in because of the words that they hardly decode and understand, which were not addressed during primary and elementary grades. It is the teacher's responsibility to model readings and provide a scaffold for students who need additional support in fluency development Nichols et al., 2009).

Cotter (2012) observed that consistent fluency practice, combined with direct instruction and teacher modeling, helps students become more fluent readers and achieve greater overall success in reading. Similarly, Rasinski, Homan, and Biggs (2009) emphasized several key instructional roles teachers can take to foster reading fluency, such as modeling fluent reading, serving as a fluency coach, engaging students in assisted reading, selecting appropriate fluency materials, and encouraging performance with recognition.

Nichols et al. (2009) also highlighted the teacher's responsibility to model reading and provide scaffolding for students who require additional fluency support.

Rupley (2009), in his study "Effective Reading Instruction for Struggling Readers: The Role of Direct/Explicit Teaching," highlighted that effective direct instruction relies heavily on dynamic communication and engagement between teachers and learners. Key features of this instructional method include clear demonstrations, explicit explanations, and structured guided practice. The research emphasized that small group instruction is more adaptable to individual learning needs compared to whole-class settings, making it particularly advantageous for students who struggle with reading. Tailoring instruction to a student's specific level and adjusting the teaching pace as needed were found to significantly enhance learning outcomes. Ultimately, the study concluded that acknowledging individual differences and applying appropriate levels of direct instruction aligned with learning objectives is foundational to successful reading instruction.

In another study, Laufer and Ravenhorst-Kalovski (2010), through their work "Lexical Threshold Revisited: Lexical Text Coverage, Learners' Vocabulary Size and Reading Comprehension," determined that non-native English readers must comprehend at least 98% of a text's vocabulary to read independently with understanding. Effective vocabulary instruction, they argued, involves immersing learners in a language-rich environment with meaningful exposure to new words. Vocabulary growth is promoted when learners engage with a wide variety of texts from multiple genres suited to their reading levels. While even small vocabulary gains may not drastically increase overall text comprehension coverage, they still contribute positively to reading comprehension. Instructional strategies such as teacher read-alouds with vocabulary explanations, student-centered discussions, writing tasks using newly learned words, and modeling of advanced vocabulary by the teacher have all been identified as effective practices, particularly in classrooms that promote active teacher-student interaction (Blachowicz et al., 2006; Graves, 2007).

In a local context, Cabardo (2015) conducted a study titled "Reading Proficiency Level of Students: Basis for Reading Intervention Program," which assessed the reading skills of Year 1 to Year 3 students at HNHS—Aplaya Extension High School. The findings revealed that most students were reading at the frustration level during silent reading tasks, while their performance in oral reading generally fell within the instructional level. Furthermore, male students tended to perform lower than their female counterparts in both reading types. Although the study found no significant difference in reading proficiency across year levels or between genders, there was a statistically significant gap between students' proficiency in silent versus oral reading. These results highlight the urgent need for targeted reading interventions that focus on vocabulary enhancement and provide differentiated support for both silent and oral reading.

In another relevant study, Bigozzi et al. (2017), through their research "Reading Fluency as a Predictor of School Outcomes Across Grades 4–9," investigated how reading fluency influences academic achievement across different grade levels while accounting for the role of reading comprehension. The study involved 489 students from both primary and secondary education, with 71 participants from Grade 8. Each student was individually assessed by a trained examiner. Participants read grade-level passages with an emphasis on speed, accuracy, and comprehension. Two key components of fluency were measured: rapidity, defined as the number of syllables read divided by the time taken in seconds, and accuracy, measured by the number of words misread. The study demonstrated that reading fluency, encompassing both speed and accuracy, serves as a strong predictor of academic performance.

Thus, the results of the study show that overall reading rapidity correlates positively with accuracy. The two reading fluency components are differently associated with reading comprehension. Reading rapidity and comprehension did not correspond at a statistically significant level, whereas reading accuracy and comprehension were negatively correlated: the fewer decoding mistakes made, the better the comprehension. Whereas reading rapidity and accuracy, and reading accuracy and comprehension correlated at all school levels, reading speed and comprehension were associated with other grades but not in Grade 8. Reading comprehension and fluency are strictly interrelated processes; however, based on the data results, both contribute independently to school marks in several subjects.

Similarly, Rasinski et al. (2005) conducted a study involving 303 ninth-grade students and found that a lack of fluency at this level may contribute to difficulties in reading comprehension for some learners. The study highlights that emphasizing fluency instruction in high school is a suitable and effective approach for helping struggling readers enhance their comprehension. The findings demonstrate the interdependent

relationship between fluency and comprehension, showing that improvements in one can positively influence the other. Hence, fluency affects the student's comprehension. The more the student can read and produce sounds in words, the more the student can comprehend.

Likewise, Pressley, Gaskins, and Fingeret's study (2006) on "Metacognitively competent reading comprehension" found that middle school struggling readers show growth in reading achievement because of consistent fluency exercises.

In many classrooms today, it is still common to find students who struggle with reading and fall short of grade-level expectations. One instructional method that has shown effectiveness in addressing this issue is explicit and direct instruction, particularly in teaching core reading components such as fluency (Rupley, Blair, & Nichols, 2009). This approach emphasizes clear demonstrations of reading skills and structured opportunities for guided practice, promoting meaningful teacher-student interaction. Rupley et al. (2009), in their study "The Key to Direct/Explicit Instruction is the Active Communication and Interaction Between Teacher and Student," highlighted that critical features of this strategy include detailed explanations, teacher modeling, and guided student practice. Through modeling, educators show learners how to perform specific reading tasks, which helps students better understand texts and build deeper comprehension.

To support fluency development, many classrooms incorporate assisted reading strategies. These may involve pairing students with a more fluent partner or using pre-recorded readings as models. Some teachers establish daily routines where students participate in assisted reading with a peer or coach, while others set up listening centers where students read along with audio recordings. A critical component of fluency instruction is providing targeted support for students who need help in this area. During assisted reading sessions, teachers may read aloud with individual students or pairs, helping them develop smoother, more expressive oral reading. This hands-on, interactive approach not only builds fluency but also enhances overall reading comprehension.

The observational studies mentioned in this section were used to substantiate and validate the present study.

3. METHODOLOGY

3.1. Research Design

This study employed a quasi-experimental one-group pretest-posttest design to assess the effects of the Fluency Development Approach (FDA) on students' reading accuracy and comprehension. A quantitative approach was chosen because it allows for objective measurement of improvements in reading skills through numerical data, ensuring a clear evaluation of the intervention's effectiveness. Unlike purely qualitative research, which focuses on subjective experiences, or mixed-methods research, which requires broader data collection strategies, a quasi-experimental design was deemed more appropriate for measuring direct, observable changes in reading proficiency.

A true experimental design was not feasible due to constraints in randomization, as students were pre-identified based on their reading levels through the Diagnostic Reading Inventory. Given the structured school setting, it was impractical to randomly assign students to control and experimental groups. The quasi-experimental approach enabled the researcher to work within these constraints while still providing valuable insights into the efficacy of the FDA in improving reading fluency and comprehension.

3.2. Participants

The study involved 38 Grade 8 students identified as high-risk frustration-level readers based on their Diagnostic Reading Inventory results in both reading accuracy (word count per minute) and comprehension level. These students were selected from six different sections within the school. Among the participants, 13 were female and 25 were male, with an age range of 13 to 15 years old. This targeted selection ensured that the study focused on students who were most in need of fluency and comprehension interventions.

3.3. Data Collection

Data collection was conducted in three phases: pretest, intervention, and posttest. In the pretest phase, the Phil-IRI (Philippine Informal Reading Inventory) was used as a baseline assessment to classify students' level as to frustration, instructional, or independent. The Fluency Accuracy Assessment and Norms instrument was employed to compute words correct per minute (WCPM), and the Phil-IRI Silent Reading Procedure was adapted for comprehension assessment.

The intervention lasted for five weeks, with students attending three sessions per week, each lasting one hour and forty minutes. After the intervention, a posttest was administered using the same instruments as the pretest to measure changes in reading accuracy and comprehension.

The study utilized several standardized and researcher-developed instruments. The Diagnostic Reading Inventory (Phil-IRI, 2013) was used to classify students' reading levels as frustration, instructional, or independent, measuring both reading accuracy (WCPM) and comprehension skills. The Fluency Accuracy Assessment and Norms instrument assessed reading accuracy using the word count per minute (WCPM) metric, with interpretation based on the following scale: 99% Correct (Independent Level Reading), 95% Correct (Instructional Level Reading), and 90% Correct and Below (Frustration Level Reading).

To evaluate reading comprehension, the study adapted the Phil-IRI Silent Reading Procedure, where students answered 50 multiple-choice comprehension questions. These questions were structured according to the DepEd Order No. 33, s. 2004 cognitive categories: Remembering and Understanding (60%), Analyzing and Applying (30%), and Evaluating and Creating (10%). Additionally, a teacher-made comprehension test was developed, consisting of 50 validated questions aligned with a Table of Specifications (TOS). The test items were drawn from four literary texts (The Empty Pot, Yuuki and the Tsunami, The Shinasha of the Pointing Carriage, and The Ogre of Rashomon), all of which underwent readability testing to ensure appropriate difficulty for Grade 8 students.

The teacher-made test was pilot-tested with another Grade 8 cohort at Kalilangan National High School to ensure reliability and validity. An item analysis was conducted, resulting in a reliability score of 0.70, confirming the test's consistency. The test was then used for both the pretest and posttest assessments.

The reading material used during the intervention was the story" Bible: The Story of Ruth", a 516-word passage sourced from the Grade 8 English module. A readability assessment using the Flesch-Kincaid Grade Level indicated a 7.7 readability score, confirming its suitability for Grade 8 students.

4. DISCUSSION

4.1. The Reading Accuracy Level of Students Before and After Exposure to Fluency Development Approach

Table 1 shows the reading accuracy (WCPM) of the students in the pretest and posttest. Reading accuracy level was assessed based on the students' scores in the word count per minute from the accuracy of the word recognition assessment.

N= 38	Frustration	Instructional	Independent	
	N %	N %	N %	
Pretest	38 100	0 0	0 0	
Posttest	7 18.42	20 52.63	11 28.94	

Table 1. Student's Reading Accuracy Level (Word Count Per Minute)

The accuracy level was classified into three: independent, instructional, and frustration. Table 1 shows that all or 100% of the students belonged to the frustration reading accuracy level in the pretest. However, it further shows that after the intervention, 31 of 38 students (81.57%) improved their reading accuracy level in the posttest. Also, 20 of the 31 (52.63%) respondents belonged to instructional, and 11 (28.94%) moved to an independent level. Still, seven students remained at the frustration level.

The result implies that all the identified frustrated readers from the previous school year of 2016-2017 were still poor readers. They were the struggling learners who lacked assistance from their family at home, and those who were on the list of absentees at school. Additionally, students at the instructional level needed further support from peers, family members, or teachers.

The study demonstrated an increase in the mean posttest scores for reading accuracy following the implementation of the intervention. This suggests that the Fluency Development Approach (FDA) had a beneficial effect on students' accuracy in reading. These findings align with those of Evanchan's (2015) quasi-experimental research, which reported significant improvements in words correct per minute and fluency skills resulting from the consistent application of the FDA.

Similarly, the result is in accord with the findings of Tucker and Jones (2010), showing that the Read Naturally intervention was effective among students at risk for reading failure, where accuracy level in the posttest increased. This finding means that the use of intervention with repeated modeling and progress monitoring bridges the gap between students' low accuracy level, which is the same with the FDA as that used in the present study.

Furthermore, the result of the study is in accordance with the findings of Caldwell, Nichols, and Mraz (2006), showing that after a series of practice through repeated reading, students' average word count per minute increased. The reading intervention programs for low or frustrated readers helped improve reading accuracy and fluency. However, a lack of practice also affected reading comprehension. Students' ability to comprehend texts effectively was affected by how students' decoded words in passages about proficiency in accuracy. Herein, repeated reading practice with well-suited texts facilitated comprehension improvement.

The results reveal that students acquired greater ease and a quicker rate of accuracy when interacting with a peer or an adult who spoke independently with greater proficiency. This observation is consistent with the Interaction Hypothesis or the Social Constructivists Model of Michael Long, where interaction and input are the two major players in the process of learning. Significantly, these players had an impact on the fluency improvement of students, especially those who belonged to the frustration level. Hence, interaction with a peer or adult may help students build their confidence in socializing and learning. It is a common observation that when students have difficulty in reading words and passages, he/ she may not be confident enough to read orally in the whole class or even in public. Thus, interaction with an independent adult reader can be a strategy for accuracy enhancement.

Furthermore, other reading accuracy strategies like the use of vocabulary, word study, and other performance reading, which are found in the module and cited studies, might have helped the greater improvement of students' scores in the posttest. Nevertheless, when one should cater to reading practice, further guidance and interaction with frustrated readers could help improve their reading accuracy level and reading performance in school.

4.2. The Reading Comprehension Level of Students Before and After Exposure to Fluency Development Approach

Table 2 presents the results of the pretest and posttest of students' reading comprehension. The basis for checking the level was through a 50-item researcher-made test questionnaire, and the scores were interpreted from the Phil-IRI Silent Reading program.

Table 2. Student's Reading Comprehension Level

N=38	Frustration		Instructional		Independent		
	N	%	N	%	N	%	
Pretest	38	100	0	0	0	0	
Posttest	17	44.74	21	55.26	0	0	

Reading Comprehension:

90-100: Independent

75-89: Instructional

74%—below: Frustration

Table 2 presents the students' reading comprehension before and after FDA intervention. Initially, the pretest shows that all the students were under the frustration level. However, the posttest result reveals that 21 of 38 (55.26%) students moved to the instructional level. Also, none of the students advanced to the independent level because the increase in their posttest scores did not reach the range for the independent level. This result means that more than 50 percent of students from the identified frustrated readers moved to the instructional group. They might have been considered fast or independent readers, but their reading comprehension level significantly improved.

The results of the study revealed that the FDA helped improve students' reading comprehension, which aligns with the findings of Rasinski et al. (2005). Both studies found that the FDA was appropriate for struggling readers and helped improve comprehension. The more the students could pronounce words, the more they could comprehend. Thus, fluency and comprehension worked together for further reading improvement.

The current study supports the findings of Sanford (2015), which highlight that various cognitive and emotional factors play a role in shaping the reading comprehension abilities of secondary students with disabilities. Recognizing the weight of these factors can assist educators in developing focused instructional approaches to address reading challenges. A key finding from Sanford's study revealed a statistically significant negative relationship between extrinsic motivation and reading comprehension, indicating that students with higher levels of intrinsic motivation generally demonstrate better comprehension performance.

Moreover, the findings support Cekiso's (2012) study, which demonstrated that students in the experimental group significantly improved their comprehension test scores after receiving an intervention, unlike the control group. This highlights the effectiveness of targeted reading interventions, particularly for Grade 11 ESL learners. Similarly, the present study's observed increase in posttest scores following the use of the Fluency Development Approach (FDA) reinforces the effectiveness of structured fluency instruction in enhancing reading comprehension. This outcome is consistent with White's (2012) conclusion that early, intensive, and focused interventions lead to more substantial improvements in reading comprehension and that identifying and addressing these challenges early in a student's academic journey is crucial for long-term success. In other words, the earlier the identification of poor readers, the earlier an intervention can be made that helps improve the fluency deficiency of the frustrated readers. Hence, it would be more difficult to address reading problems if an intervention or remediation is delayed until children are older.

4.3. The Significant Difference in the Reading Accuracy Level of The Students Before and After Exposure to Fluency Development Approach

Table 3 presents the significant difference in the reading accuracy level of students in the pretest and posttest using the word count per minute (WCPM) accuracy of the word recognition assessment. It presents the variables, the means, the mean difference, the standard deviation, the t-value, and the p-value.

 Variable
 Pretest M (SD)
 Posttest M (SD)
 Difference M (SD)
 t-value Provided
 p-value

 Reading Accuracy
 89.00 (2.93)
 97.21 (2.75)
 8.20
 12.29
 <.001*</td>

Table 3. Difference in the Reading Accuracy Level of Students

*Significant at p< .05

Table 3 shows that the mean scores of reading accuracy increased with its mean difference of 8.20 in the posttest. This result reveals an improvement in students' level of reading accuracy after the implementation FDA intervention.

The significant difference in the level of reading accuracy supports the study of Samuels (2006), pointing out that intervention that caters to repeated readings is an essential technique to fluency improvement, and this explains to automaticity theory. It also adheres to the principle of frequency – that a passage should be read several times until readers can read with accuracy, to see an increase in the accuracy score of the student.

Moreover, the p-value of .001 for reading accuracy, being well below the 0.05 threshold, indicates a highly significant difference between the students' pretest and posttest scores. As a result, the null hypothesis—stating that there is no significant difference in students' reading accuracy levels before and after the implementation of the Fluency Development Approach—is rejected.

Furthermore, the results of the present study are consistent with the findings of Tucker and Jones (2010), which demonstrated significant gains in reading accuracy, rate, and fluency following a 10-week fluency intervention. Similarly, the study supports the conclusions of Christ and Davie (2009), who found that students participating in the Read Naturally program showed improvements in standardized measures of reading accuracy and fluency. These findings reinforce the effectiveness of targeted interventions in enhancing reading accuracy, as also evidenced in the present study.

Additionally, the present study aligns with the results of Bigozzi et al. (2017), which found a positive correlation between reading rapidity and accuracy across school levels. The study indicated that reading speed and accuracy, as well as accuracy and comprehension, were interconnected at all grade levels, while reading rapidity and comprehension were associated in most grades except Grade 8. These results underscore the strong interrelationship between fluency and comprehension. According to Rasinski, Homan, and Biggs (2009), teachers play a vital role in developing students' reading fluency through actions such as modeling fluent reading, serving as fluency coaches, engaging in assisted reading, gathering fluency resources, and providing opportunities for performance and celebration. In line with this, the present study also supports the findings of Nichols et al. (2009), which emphasized the teacher's responsibility to model fluent reading and provide scaffolding for students who require additional support in fluency development.

This accounts for a method where there should be a model for oral reading, it could be a teacher or a peer, for students to receive multiple opportunities in the reading process. This accounts for the theory of Social Development Theory of Lev Vygotsky, which emphasizes the importance of social interaction to learn language. Thus, an active presence of people and the environment affects the improvement of students' language learning.

Additionally, the findings of the current study are consistent with Rupley's (2009) research, which emphasizes that direct instruction fosters active communication through meaningful teacher-student interaction. This aligns with the principles of the Fluency Development Approach used in the present study, as it incorporates modeling and guided practice within small group reading sessions. Such an approach is particularly beneficial for struggling readers, as it allows instruction to be tailored to their learning levels and enables the teacher to adjust the pace of instruction to meet their specific needs.

4.4. The Difference in the Reading Comprehension of Students Before and After Exposure to Fluency Development Approach

Table 4 presents the significant difference in the reading comprehension level of students in the pretest and posttest using the Phil-IRI reading program. It shows the variables, the means, the mean difference, the standard deviation, the t-value, and the p-value.

Table 4. Difference in the Reading Comprehension Level of Students

Protect

Protect

Difference

Variable	Pretest	Posttest	Difference			
	M (SD)	M (SD)	M (SD)	t-value	p-value	
Reading	18.86 (2.73)	37.23(2.35)	18.37	33.41	<.001*	
Comprehension						

^{*}Significant at p< .05

Table 4 shows that the mean scores of reading comprehension increased with the mean deviation of 18.27 in the posttest. This result implies a positive effect of the Fluency Development Approach on the students' comprehension, as shown in the students' scores in the posttest.

The results of the current study, which demonstrate the effectiveness of the Fluency Development Approach (FDA) in improving reading comprehension, agree with Cotter's (2012) findings. Cotter's research highlighted that strategies targeting reading fluency can significantly enhance students' overall comprehension, with repeated reading identified as a key intervention—an approach also applied in the

present study. This is further supported by Neddenriep et al. (2010), who found that repeated reading, when combined with guided practice, timely feedback, and modeling, resulted in significant improvements in reading comprehension. Within the framework of the present research, such fluency-centered strategies proved effective, as evidenced by 55.26% (21 out of 38) of students—originally at the instructional or frustration level—showing measurable gains in comprehension.

Likewise, Rasinski et al. (2005) underscored the value of fluency instruction for high school students, especially those who struggle with reading, reinforcing the strong connection between fluency and comprehension. As students become more fluent in decoding and word recognition, their ability to understand text typically improves. This aligns with LaBerge and Samuels's automatic information processing theory, which asserts that readers must move beyond effortful decoding to achieve automatic word recognition. As fluency becomes more automatic, cognitive load is reduced, allowing students to focus more fully on understanding the text. This supports the critical role fluency plays in fostering reading comprehension.

Also, the findings of the present study agree with the results of Schall (2016), stating that repeated reading and listening while reading is one of the supported interventions to fluency helped with little evidence in comprehension. However, listening while reading significantly enhanced comprehension. This result implied that implementing listening while reading or improving accuracy could be a way to increase comprehension rate. Nevertheless, it was also evident to first include the variable of passage difficulty to use in implementing the intervention in accuracy and comprehension.

The study is also aligned with that of Laufer and Ravenhorst-Kalovski (2010), stating that knowing (decoding) words in reading texts can make students achieve an independent reading comprehension, but they should be exposed to a language environment and word experiences. Additionally, students' vocabulary growth is cultivated when they are immersed in an abundance of reading materials of diverse genres and topics at appropriate reading levels. With the same process, the teacher reads the passage aloud that is accompanied by content discussions, and with other reading activities, and modeling reading may also help enhance students' comprehension level.

Moreover, the results of the study agree with those of Bigozzi et al. (2017), stating that the fewer decoding mistakes made, the better the comprehension. The idea suggests that reading comprehension and fluency are strictly interrelated processes. However, based on the data results, both contribute independently to school marks in several subjects.

Furthermore, all students belong to the frustration level in the pretest of both reading accuracy and comprehension, but their scores increased in the posttest. The result of the present study suggests that reading comprehension and reading accuracy advance at different paces and that reading accuracy could be improved earlier to a higher degree than reading comprehension.

On the other hand, this significant increase in the result in the present study with the Fluency Development Approach could be attributed to the activities in the Grade 8 K-12 learning materials. In catering to reading activities, many assessments and reading assignments were commonly brought home for the students to read and practice. Thus, some of the materials during the conduct of the intervention were brought home for oral reading practice based on the FDA procedure. Moreover, based on the 2015 report of Kalilangan National High School National Achievement Test (NAT), the English subject garnered the mean percentage of 42.98%, which was found as the least mastered area among all areas. This poor performance in English was attributed to poor reading skills of students. Based on the result of this study, the FDA could be a key solution to help frustrated readers and eventually move to the independent level.

Based on the findings, the following recommendations were formulated:

- Increasing the sample size is recommended to validate the results of the present study.
- A longer intervention program is suggested to provide frustrated level readers enough practice opportunities to improve their reading accuracy and comprehension level.
- Teachers handling frustrated readers should use different strategies to help low-fluency performance students and improve their comprehension level.

Also, it is suggested that another study would be done assessing students' fluency and comprehension
using other variables like reading automaticity, prosody, and speed, and the other factors that this study
did not address.

5. CONCLUSIONS

This study aimed to investigate the effectiveness of the Fluency Development Approach (FDA) in enhancing students' reading accuracy and comprehension, addressing the persistent challenge of low reading proficiency among middle school learners. The key findings indicate that students demonstrated measurable improvement in reading accuracy. Additionally, while they advanced to the instructional level in reading comprehension, their progress was insufficient to meet the expected proficiency for Grade 8. Nonetheless, the results confirm that the FDA positively influences both reading accuracy and comprehension, highlighting its potential as an effective intervention strategy.

This study explored the impact of the Fluency Development Approach (FDA) as an intervention to improve students' reading proficiency. The findings revealed several important conclusions.

First, the students demonstrated noticeable improvement in their reading accuracy. Second, while they progressed to the instructional level in reading comprehension, the gains were not sufficient for them to meet the required proficiency level for Grade 8. Third, the use of the FDA had a positive impact on both reading accuracy and comprehension, reinforcing its effectiveness as a literacy intervention. However, several factors may have influenced these outcomes. Limitations such as sample size, the duration of the intervention program, and the instruments used could have affected the results.

These findings align with recent studies emphasizing the role of fluency-based interventions in reading development. Research by Rasinski et al. (2020) and Kuhn et al. (2019) underscores the connection between fluency instruction, accuracy, and comprehension, supporting the positive impact observed in this study. However, while previous studies have reported more substantial gains leading to grade-level proficiency, this research highlights the need for more intensive or prolonged interventions to achieve similar outcomes.

The study also identified several limiting factors that may have influenced the results, including the sample size, the duration of the intervention, and the assessment tools used. These constraints suggest that future research should explore longer intervention periods, larger participant groups, and more comprehensive assessment methods to further validate the FDA's effectiveness. Despite these limitations, this study contributes to the growing body of research on fluency development by demonstrating its potential in improving key reading skills. Addressing these limitations in future studies will provide deeper insights into how fluency-based strategies can be optimized for greater impact in literacy instruction.

Acknowledgment. The researcher would fervently want to give gratitude to the persons who, in one way or another, had helped and had given her the vigor to realize this endeavor: The GOD, the Almighty, for making her strong and giving her the strength she needed at times, especially when she felt soft and down. Dr. Jeneifer C. Nueva, her research adviser, for her ever-supportive guidance and a witty mentor by giving her the decisive pieces of advice and bottomless suggestions in making her study a great success. Dr. Agapito M. Bayron, Jr., and Prof. Elisa L. Guimbao, her thesis committee members, for their maximum assistance and kind support in polishing her study. Prof. Joanne E. Bermillo and Prof. Amita B. Sususco for their valuable suggestions as examiners. Sir Joseph Nicolas D. Prantilla, her statistician, for helping her with statistics and coaching her on the tables and figures necessary in her research. Also, to her mother and father, for giving her unending love, patience, and care throughout her studies. And for the day-to-day encouragement and to her family, for being the paragon of values and the root of all support in her upbringing, to continue and be determined in living her day with studies. Furthermore, to her classmates and friends, for their unwavering comfort, endurance, and for giving her the excitement to pursue her studies.

Research Ethics. All procedures performed in this study involving human participants were conducted following the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments. Before the commencement of the study, ethical clearance was secured from the Kalilangan National High School Research Ethics Committee. The research was approved in 2018 with the approval letter from the school principal. Informed consent was obtained from all participants, and parental consent was also secured for

learners below 18 years of age. Confidentiality and anonymity of all participants were strictly maintained throughout the research process.

Data Availability Statement. The data supporting the findings of this study, "Fluency Development Approach on Students' Reading Accuracy and Comprehension Level," conducted by Losel Mae S. Abellana and Jeneifer C. Nueva, are not publicly available due to the inclusion of sensitive information from learners at Kalilangan National High School. Access to the data is restricted to ensure participant confidentiality and comply with ethical guidelines. However, anonymized data may be made available by the corresponding author upon reasonable request and with approval from the relevant ethical review board.

Conflicts of Interest. The authors declare that they have no conflict of interest.

Funding. This research received no external funding.

REFERENCES

- Alvarez- Cañizo, M. (2015). The Role of Reading Fluency in Children's Text Comprehension. Frontiers in Psychology, 6, 163234. https://doi.org/10.3389/fpsyg.2015.01810
- Biemiller, A., & Boote, C. (2006). An effective method for building meaningful vocabulary in primary grades. *Journal of Educational Psychology*, 98(1), 44–62. https://doi.org/10.1037/0022-0663.98.1.44
- Bigozzi, L., Tarchi, C., Vagnoli, L., Valente, E., & Pinto, G. (2017). Reading Fluency as a Predictor of School Outcomes across Grades 4–9. Frontiers in Psychology, 8, 204198. https://doi.org/10.3389/fpsyg.2017.00200
- Boardman, A., Roberts, G., Vaughn, S., Wexler, J., Murray, C., & Kosanovich, M. (2008). Effective instruction for adolescent struggling readers: A practice brief. RMC Research Corporation, Center on Instruction.
- Bowman-Perrott, L. (2009). ClassWide Peer Tutoring: An effective strategy for students with emotional and behavioral disorders. *Intervention in School and Clinic*, 44(5), 259-267. https://doi.org/10.1177/1053451208330898
- Breznitz, Z. (2006). Fluency in reading: Synchronization of processes. Lawrence Erlbaum Associates Publishers.
- Cabardo, JR., (2010). Reading proficiency level of students: Basis for reading intervention program. (Unpublished dissertation). DepEd-Hagonoy NHS; Southeastern College of Padada, Inc., Davao del Sur. https://dx.doi.org/10.2139/ssrn.2712237
- Cekiso, M., 2012, Effects of strategy instruction on the reading comprehension and strategy awareness of Grade 11 English second language learners in the Eastern Cape. Reading & Writing 3(1), 23, 8. http://dx.doi.org/10.4102/rw.v3i1.23
- Cotter, J. (2012). Understanding the relationship between reading fluency and reading comprehension: Fluency strategies as a focus for instruction. *Education Masters. Paper* 224.
- Dudley, A. (2005). Rethinking reading fluency for struggling adolescent readers. *Eric,* 15(2), 16-22. https://eric.ed.gov/?id=EJ845906
- Edmonds et al. (2007). "Interventions for adolescent struggling readers: A meta-analysis with implications for practice." ("Interventions for Adolescent Struggling Readers: A Meta-Analysis with ...") ERIC, 49. https://eric.ed.gov/?id=ED521837
- Elhassan, Z., Crewther, S. G., Bavin, E. L., & Crewther, D. P. (2015). Preliminary validation of FastaReada as a measure of reading fluency. Frontiers in Psychology, 6, 154900. https://doi.org/10.3389/fpsyg.2015.01634
- Evachan, G. (2015). The development of fluency and comprehension literacy skills of second-grade students through providing regular use of the fluency development lesson. (Unpublished dissertation), University of Akron, Ohio, United States. https://goo.gl/xBUKwM
- Flojo, O. (2007). The Phil-IRI assesses the reading levels of pupils in the public school. Handout.
- Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly*, 41(1), 93-99. https://doi.org/10.1598/RRQ.41.1.4
- Gillaco, M. (2014). Level of word recognition and reading comprehension: A basis for a reading program. *Asia Pacific Journal of Education, Arts and Sciences, 1*(5), 69-75
- Guthrie, J. T. (Ed.). (2008). Engaging adolescents in reading. Corwin Press.
- Hasbrouck, J. E. & Tindal, G. (1992). Curriculum-based oral reading fluency forms for students in Grades 2 through 5. *Teaching Exceptional Children*, 41-44

- Howe, K. B. & Shinn, M. M. (2001). Standard reading assessment passages (RAPS) for use in general outcome measurements: A manual describing development and technical features. Edformations
- Hudson, R. F., Lane, H. B., & Pullen, P. C. (2005). Reading fluency assessment and instruction: What, why, and how. Reading Teacher, 58(8), 702–714. http://dx.doi.org/10.1598/RT.58.8.1
- Kamps, D.M., et al. (2008). The efficacy of classwide peer tutoring in middle schools. *Education & Treatment of Children,* 31, 119-152.
- Klauda, S. L. & Guthrie, J. T. (2008). Relationships of the three components of reading fluency to reading comprehension. *Journal of Educational Psychology*, 100, 310-321.
- Krumm, S., Ziegler, M., & Buehner, M. (2008). Reasoning and working memory as predictors of school grades. Learning and Individual Differences, 18(2), 248–257. https://doi.org/10.1016/j.lindif.2007.08.002
- LaBerge, D., & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology*, 6(2), 293–323. https://doi.org/10.1016/0010-0285(74)90015-2
- Laufer, B., Ravenhorst-Kalovski, Geke C. (2010). Lexical Threshold Revisited: Lexical Text Coverage, Learners' Vocabulary Size and Reading Comprehension. Reading in a Foreign Language, 22(1), 15-30.
- Lenz, K., 2005. An introduction to reading comprehension. Retrieved from http://www.specialconnections
- Low Proficiency in Reading Comprehension May Threaten Global Competitiveness (2010, February 22), *The Philippine Star.* Retrieved from https://goo.gl/bpcVik
- Lutkus, A.D., Rampey, B.D., & Donahue, P.L. (2006). *The Nation's Report Card: Trial Urban District Assessment Reading 2005 (NCES 2006–455r)*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. U.S. Government Printing Office.
- Mellard, D., Woods, K., Desa, Z., & Vuyk, M. (2015). Underlying reading-related skills and abilities among adult learners. *Journal of Learning Disabilities*, 48(3), 310–322.
- Mercer, C., Campbell, K., Miller, D., Mercer, K., & Lane (2010). Effects of a reading fluency intervention for middle schoolers with specific learning disabilities. *Learning Disabilities Research & Practice*, 15(4), 179-189.
- Nichols, W., Paige, D., Rupley, W., Ransinski, T. (2016). Alternative text types to improve reading fluency for competent to struggling readers. *International Journal of Instruction*, 9, 164-178. https://doi/10.12973/iji.2016.9113a
- Onu, E. & Obidoa, M. (2012). Use of peer tutoring, cooperative learning, and collaborative learning: Implications for reducing anti-social behavior of schooling adolescents. *US-China Education Review A* 11.
- Pearson, P.D., & Goodin, S. (2010). Silent reading pedagogy: A historical perspective. In E.H. Hiebert & D.R. Reutzel (Eds.), Revisiting silent reading: New directions for teachers and researchers (pp.3–23). International Reading Association.
- Pikulski, J. J., & Chard, D. J. (2005). Fluency: Bridge between decoding and reading comprehension. *The Reading Teacher*, 58, 510-519.
- Pressley, M., Gaskins, I.W., & Fingeret, L. (2006). Instruction and development of reading fluency in struggling readers. In. S. Samuels & A. Farstrup (Eds.), *What research has to say about fluency instruction* (pp.47-69). International Reading Association.
- Rasinski, T. (2004). Creating fluent readers. Educational Leadership, 61(6), 46-51.
- Rasinski, T. (2008). Teaching reading fluency to struggling readers: method, materials, and evidence. Kent, OH 44242
- Rasinski, T., Homan, S., & Biggs, M. (2009). Teaching reading fluency to struggling readers: Method, materials, and evidence, Reading & Writing Quarterly, 25(2-3), 192-204,
- Rasinski, T., Rupley, W., Paige, D., & Nichols, W. (2016). Alternative text types to improve reading fluency for competent to struggling readers. *International Journal of Instruction*, 9(1), 163-178.
- Rasinski, T.V. (2003). The Fluency Reader: Oral reading strategies for building word recognition, fluency, and comprehension. Scholastic
- Rasinski, T.V., Padak, N.D., Linek, W.L., & Sturtevant, E. (1994). Effects of fluency development on urban second-grade readers. *Journal of Educational Research*, 87, 158–165.
- Rasinski. T. (2010). The fluent reader (2nd Ed.). Scholastic.
- Reutzel, R. (2006). Reading Fluency: What Every SLP and Teacher Should Know. The Asha Leader, 14, 10-13.

- Rupley, W., Rasinski, T., Blair, & Nichols, W. (2009). Effective reading instruction for struggling readers: The role of direct/explicit teaching. Reading & Writing Quarterly, 25(2-3), 125-138
- Samuel, S. J. (2006). Towards a model of reading fluency. In S. J. Samuels & A. E. Farstrup (Eds.), What research has to say about fluency instruction (pp.24-46). International Reading Association.
- Sanford, Karen L. (2015). Factors that affect the reading comprehension of secondary students with disabilities. (Unpublished doctoral dissertation). University of San Francisco, San Francisco.
- Schall, M. (2016). A comparison of comprehension accuracy and rate: Repeated readings and listening while reading. (Unpublished dissertation), University of Tennessee, Knoxville, Tennessee, United States.
- Spooner, A. L., Baddeley, A. D., & Gathercole, S. E. (2004). Can reading accuracy and comprehension be separated in the Neale Analysis of Reading Ability? *The British Journal of Educational Psychology, 74*(Pt 2), 187–204. https://doi.org/10.1348/000709904773839833
- Stanovich, P. J., & Stanovich, K. E. (2003). Using research and reason in education: How teachers can use scientifically based research to make curricular & instructional decisions. US Department of Education
- Strucker J., Yamamoto K., & Kirsch I. (2007). Tipping points and five classes of adult literacy learners (NCSALL Report #29). Cambridge, MA: *National Center for the Study of Adult Learning and Literacy*. The relationship of the component skills of reading to IALS performance.
- Torgesen, J.K. & Hudson, R. (2006). Reading fluency: critical issues for struggling readers. In S.J. Samuels and A. Farstrup (Eds.). Reading fluency: The forgotten dimension of reading success. International Reading Association.
- Treptow, M.A. (2006). Reading at students' frustration, instructional, and independent levels: Effects on comprehension and time on-task. University of Minnesota Center for Reading Research.
- Tucker, C. & Jones, D. (2010): Response to intervention: Increasing fluency, rate, and accuracy for students at risk for reading failure. National Forum of Educational Administration and Supervision Journal. https://www.readnaturally.com/userfiles/ckfiles/files/tucker-jones-article.pdf
- White, B. (2012). *Understanding reading comprehension performance in high* school. (Unpublished dissertation), Queen's University, Kingston, Ontario, Canada.
- White, R. (2012). Building schools of character: The development, implementation, and evaluation of a school-based character education program designed to promote cooperative learning and reduce antisocial behavior. (Unpublished doctoral dissertation), Durham University, Durham.
- Zimmerman, B., & Rasinski, T. (2012). The fluency development lesson: A model of authentic and effective fluency instruction. *Fluency Instruction: Research-Based Best Practices* (pp. 172-184). New York.
- Zimmerman, Belinda S. & Kruse, Sharon D. (2013). The Fluency Development Lesson Gets Graphic, SANE journal: Sequential Art Narrative in Education: How do Filipino students rate in reading? (2010). The Philippine Star. Retrieved from https://goo.gl/n8MQAC.