

The Effectiveness of Interactive Writing on Reading Fluency

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Abstract

The purpose of this study was to examine the effectiveness of interactive writing and its impact on reading fluency of second grade students who were reading slightly below to below grade level.. The study had an experimental design with random group assignment to experimental (n = 7) and control (n = 8) groups. The measurement tool was the Reading A-Z timed fluency assessment. The groups did not differ significantly on the fluency pretest. The experimental group participated in interactive writing while the control group participated in independent writing. The mean posttest fluency score of the Interactive Writing group (Mean = 90.71 SD = 7.82) was not significantly different from the mean fluency score of the Independent Writing Group (Mean = 96.13, SD = 3.80) [$t(13) = 1.74, p = .11$]. Consequently, the null hypothesis that there would be no significant statistical difference in reading fluency between the students in the Interactive Writing group and those in the Independent Writing group was retained. However, observational data suggests the need for continued analysis to see if high engagement and motivational strategies lead to long term reading achievement. Research in the area of reading fluency should continue because poorly developed word recognition skills are a debilitating cause of the reading difficulties students face today.

CHAPTER I

INTRODUCTION

Overview

Many students nationwide are not reading at the proficiency level and thus not achieving grade level expectations. Research suggests that early, explicit instruction in decoding and phonological awareness skills helps students increase reading success (Gale, 2005). A student's level of phonological awareness by the end of kindergarten is one of the strongest predictors of future reading success in first grade and beyond (Trehearne & Healy, 2003). Early reading proficiency is essential for later learning success (Coyne & Koriakin, 2017).

The most pervasive and debilitating reading challenges students face as they progress through the grades are poorly developed word recognition skills. Students with these reading difficulties are more likely to have social and emotional struggles as adults, struggle with academic work, and drop out of school. In addition, they are less likely to find adequate employment in later years (Archer, Gleason, & Vachon, 2003). Early intervention is vital to ensure students not only build necessary reading skills, but also to ensure that early reading experiences are positive ones (Gale, 2005).

Interactive writing provides an authentic means for instruction in phonics and linguistic patterns within the context of meaningful text which encourages phonemic segmentation and blending of words as well as sound and letter knowledge necessary for early literacy learning. Reading and writing are reciprocal; one helps the other. A fluent reader must have automatic rapid word identification skills. McCarrier, Fountas, and Pinnell (2000) suggest that interactive writing integrates meaning with visual phonetic information and is a multi-level learning process by which a reader "builds up" or constructs a message letter by letter to make words, phrases,

and sentences. In order for a message to be read, a reader also must “break down”—take the words, phrases, and sentences apart—to construct meaning. Both reading and writing encompass phonological and language skills to make meaning. Through interactive writing, students can show how letters and sounds work together. Research has shown that interactive writing enhances word reading as well as fluency in building comprehension (Craig, 2003). The research in the current study will investigate the effects of interactive writing intervention on reading fluency of second-grade students.

Every moment of the first years of schooling are essential for building competent literacy learners by grade three; not one minute should be wasted. Interactive writing makes it possible for so many levels and kinds of learning (McCarrier et al., 2000). The researcher in the current study has used a framework for teaching phonological awareness skills which includes an interactive writing component. The purpose of the current study is to measure its effectiveness with second-grade students.

Statement of Problem

The purpose of this study was to examine the effectiveness of interactive writing and its impact on reading fluency of second grade students.

Hypothesis

The null hypothesis proposes that there will be no statistical difference in reading fluency between the students in the interactive writing group and the students in the independent writing group.

Operational Definitions

Phonological Awareness

Phonological awareness refers to the understanding that spoken words can be broken into smaller parts through multi-leveled skill development of syllabication, letter and sound association, and onset-rime

On-set is the beginning sound in a word.

Rime is the string of letters that follow the beginning sound, as well as blending and segmenting and pulling apart the sounds in words and putting the sounds back together again, forming the word. All phonic skills are imbedded in activities that develop a child's phonological awareness (Gillon, 2018).

Interactive Writing Intervention

Interactive writing is intensive guided writing instruction. Phonological awareness skills are integrated through explicit, scripted, teacher-directed instruction within the contexts of reading and writing with focus on text experience, response to text in writing, and supplemental letter-sound instruction. Interactive writing stimulates segmentation and blending of words as well as sound letter correspondence and encourages automatic word identification which is necessary for reading fluency. The teacher intentionally scaffolds instruction to accommodate complexity of the task and to benefit those with varying ability by demonstrating and gradually releasing readers to independence. "Sharing the pen" is an example of one technique which provides students with opportunities to add words, phrases, or sentences when writing in response to an authentic piece of literature (Craig, 2003).

Interactive writing group: Children who wrote opinion pieces about authentic literature as part of an Interactive Writing group.

Independent writing group: Children who wrote opinion pieces about authentic literature independently.

Reading Fluency

Reading fluency was operationally defined as performance on the Reading A-Z Timed Fluency test. The score was determined based on words read correctly in a one minute timed oral reading of a passage from level F-Z. A student's reading fluency is calculated by counting the total words read in one minute (WPM) and then subtracting the number of errors to find the word correct per minute (WCPM). Next, the WCPM is divided by WPM and multiplied by 100 in order to find the accuracy/ reading rate percentage. The accuracy/reading rate percentage is then used to identify the student's fluency rate.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This literature review will examine research related to developing reading fluency. The ability to read fluently and to understand what is being read are factors which influence a child's academic success. Without a strong grasp on basic reading skills at a young age, a child will struggle throughout the academic years and beyond. Fluency is a necessary part of reading acquisition, but how a student gets there is key. It is the bridge between decoding words and making meaning of the words being read.

The chapter as a whole will explore decoding skills as they relate to reading fluency. Understanding the relationship between decoding skills and fluency will be addressed in section one. In section two, the theoretical background will be explored as it relates to decoding and fluency. In section three, several views describing the components of reading necessary for early acquisition of reading will be examined. Section four will analyze strategies for improving decoding skills. A description of the components of reading fluency and different perspectives on theories of information processing will be addressed in section five. Section six will explore approaches for developing reading fluency. In section seven, the effect that decoding has on reading fluency will be considered.

Relationship between Decoding Skills and Fluency

According to Pikulski and Chard (2005), a definition of fluency incorporates much more than oral reading. Reading fluency refers to the efficient and effective word recognition skills that permit a reader to construct meaning of text. However, it's viewed far more broadly than that. It's viewed as the developmental process of building decoding skills that will form a bridge

to reading comprehension and will have a reciprocal and causal relationship with comprehension. It is necessary to think of fluency as part of a child's earliest experiences with print and the phonology associated with the print. Efficient decoding, the ability to pull words apart into separate sounds and put them back together again, is consistently related to reading comprehension.

Students who struggle with learning to read have deficits in decoding, according to Gale (2005). Those who are still struggling to read by the end of grade one are likely to have academic challenges and increased disciplinary problems (Cummings, Dewey, Latimer, & Good, 2011), thus falling behind their peers and in the curriculum from the start. Furthermore, readers who continue to struggle will likely have long-term effects. They will most likely struggle in academics at the secondary level, drop out of school as soon as it's possible, be less able to gain employment that can adequately support themselves, and be more likely to have social and emotional challenges as adults (Archer et al., 2003).

Theoretical Background

Readers begin at the pre-alphabetic phase; connections are made through pictures of words and their pronunciations or semantic representations. They then move systematically to subsequent progressions like the partial alphabetic phase where the reader begins to make sound to letter connections, particularly the beginning and ending sounds. The next phase is the full alphabetic phase. The reader is able to not only make complete alphabetic connections, but he/she also begins to learn sight words which are words most commonly found in printed material. At the consolidated phase, readers are using letter sound connections into larger units, thus solidifying the information (Cummings et al., 2011). For example, the word 'chest' is understood as two units /ch/ /est/ as compared to four sounds /ch/ /e/ /s/ /t/ in the full alphabetic

phase. Utilizing sounds enables automaticity to occur. Ehri's (as cited in Beech, 2005) phases of reading development and fluency allows the preceding stages to offer a framework on which to build and monitor reading fluency for emergent readers.

One stage builds upon the other beginning with simpler concepts such as rhyming and moving on to more complex concepts such as blending and segmenting as well as breaking words into meaningful parts and thereby developing language. If a reader has not developed fluency, then the process of decoding words drains attention, and insufficient attention is available for constructing meaning. Fluency builds on these foundational skills (Rasinski, Blachowitz, & Lems, 2006).

There are many factors to consider that influence reading development; cultural, socioeconomic, and instructional methods as well as intellectual ability, physical functioning, oral language skills, and knowledge of print concepts (Gillon, 2018). The Component Model of Reading; CMR, provides understanding of various influences which effect reading. The three domains, according to Gillon (2018), include the cognitive, psychological, and the ecological domains. The cognitive domain focuses on phonological awareness and vocabulary skills. The psychological domain hones in on ability, interest, and motivation as well as self-perception of being a successful reader. The ecological domain includes home and family life as well as cultural background.

Vygotsky's Social Learning Theory also plays a role in reading as well. Learning to read requires social interaction whether through teacher-directed instruction or cooperative learning in small groups with peers. Learning promotes cognitive development through the Zone of Proximal Development, which is the disparity of what a child can do without support and what a

child can do with guidance and encouragement from a teacher or competent peer (McLeod, 2018).

Components of Reading

The National Reading Panel (2000) has determined the best avenue to reading instruction is one that includes the following components: phonemic awareness, phonics, fluency, guided oral reading, sight word vocabulary, and structural analysis. Together, these components are essential for bridging decoding and fluency.

Phonemic awareness refers to phonemes, the smallest units of sound, which are broken into smaller meaningful parts such as syllables in both spoken and written language. Phonics is the relationship between letters and sounds in spoken and written form. Phonics enable readers to use relationships to read and spell words. Fluency is the ability to read as well as we speak and make sense of text without stopping to decode words. Guided reading is designated time for reading out loud while receiving guidance and feedback from skilled readers. Sight words and vocabulary, whether taught in context or isolation, enhance reading ability and enable readers to reach advanced levels of fluency (Pikulski et al., 2005). Structural analysis alludes to using word parts in constructing meaning to unfamiliar words which aides in gaining a deeper understanding of what is read.

Strategies for Improving Decoding

Reading is a skill that is necessary to be successful both academically and professionally in today's society. Thus, it is essential that educators work with students to develop their reading skills and help them become proficient readers (Snyder & Golightly, 2017). Emergent readers are typically kindergarten and first-grade students; however, depending on the needs of students in higher grades, there may also be older emergent readers as well. Students who have limited

experiences with books probably lack early concepts of print which is essential to becoming proficient readers.

According to Richardson (2009), using a lesson framework for small group activities provides students with the necessary skills and strategies for learning from whole group activities such as read alouds, shared reading, and interactive writing. The framework includes the following four components: working with letters, working with sounds, working with books, and interactive writing/ guided writing. Interactive writing integrates phonological skills within the context of reading and writing thus solidifying foundational skills. The transference of these skills aides in developing reading fluency. These components are designed to improve visual memory, phonemic awareness, oral language, and concepts of print. They are also designed to be quick, engaging, and motivating. Using explicit instruction, according to Gale (2005), in segmenting and blending words and breaking down words into individual sounds and bringing them back together to make words through the utilization of letter tiles and other manipulation tools teaches students an effective reliable strategy for decoding and reading individual words (Coyne & Koriakan, 2017). Other strategies may include matching speech to print, applying new strategies to text, and analyzing irregular words (words that do not follow general rules such as sight words and advanced letter patterns such as vowel-consonant-silent e). Providing visual, auditory, kinesthetic, and tactile experiences with the four components is essential for making the connections between the skills and the strategies which brings meaning to the reading process.

According to Gillon (2018), using rhyming games, letter tiles, and songs is an effective and engaging way for a learner to recall information and to build language skills, a prerequisite to reading acquisition. Using Elkonin boxes is also an engaging strategy for segmenting sounds

and giving a better understanding of decoding and spelling. Studies have shown early phonological processing skills play an important role in the acquisition of reading. In Deacon's (2012) study, preschool phonological awareness contributed to reading in grades one to three.

Other systematic interventions can be used to help students work towards proficiency in reading such as implementing a phonics-based intervention and a sight word reading program. Studies have shown significant gains in decoding, word identification, sight word recognition, and comprehension skills (Snyder & Golightly, 2017) when interventions have been utilized.

The Components of Reading Fluency

The National Reading Panel (2000) defines fluency as reading with accuracy, speed, and expression or prosody. Using the appropriate rise and fall of voice when reading aloud brings words to life. Otherwise, reading will be labored and not enjoyable, and therefore meaning will be lost. According to Jennings, Caldwell, and Lerner (2010), reading fluency is considered the "the missing ingredient" (p. 17) in the instruction for problem readers. Speed, accuracy, and prosody are the components of fluency which enable students to grow into proficient readers.

The theory of automatic processing explains how fluency develops. Accurate word decoding and automatic word recognition are two integral parts to becoming a fluent reader. Working memory is limited in cognitive processing; therefore, the successful acquisition of the two components will free up space for understanding (Schrauben, 2010). For example, a reader who is focused on decoding words will not have enough mental energy left over to think about meaning. As such, a fluent reader who can decode words automatically can give full attention to the meaning of text. Being able to read orally with expression is an indicator of fluency.

Fluent readers read both familiar and unfamiliar words accurately. Decoding skills are necessary to read unfamiliar words, applying phonics to match letters and sounds and looking for

patterns and chunks so words can be pronounced effortlessly. Speed is also important when reading familiar and unfamiliar words, so the words can be read instantaneously all the while the words are read with prosody. Fluent readers use punctuation and rise and fall of voice for suitable tone while reading. Reading fluency aides in comprehension; “bridging the gap between learning to read and reading to learn” (Schneider et al., 2016, p. 798)

Strategies for Developing Reading Fluency

Every reader has experiences, skills, background, and feelings. What is important is a child’s ability to communicate using spoken words. Struggling readers often have difficulty expressing thoughts and ideas through conversation due to a limited language base in the early years according to Hebert (2008). In addition, strugglers possess a limited sight vocabulary and a lack of exposure to books. The implementation of language-based activities is essential to promote discussion of thoughts and ideas. Wordless picture books encourage conversation using predictions based on individual background knowledge and vocabulary.

There are many ways to develop fluency. For example, modeling of fluent reading through read alouds, paired readings, repeated readings reader’s theatre as well as listening stations all provide exposure to rich language. Teaching how to think during reading by posing thought stems like ‘I wonder’ and ‘I am confused’ and making connections to text provide opportunities for conversation. Manipulating letters for sounding out words and putting the sounds together to build words as well as writing words *fast* keeps students motivated and engaged. Multi-sensory activities promote muscle memory and familiarity with letters and sounds and contributes to developing fluency. Studies have indicated including multi-modal instruction to promote recall and retention is an alternative way to interact instructionally with text (Schneider et al., 2016), that isn’t offered through conventional instruction. Interactive

writing/guided writing is highly engaging and interactive. The teacher begins with a sentence starter and then the pen is shared with students, which provides opportunities for students to write words, phrases, or sentences about the text with guidance and feedback from the teacher all the while promoting mastery in learning to enhance achievement (Readingrockets.org).

The Effect of Decoding and Fluency on Comprehension

According to Razinski et al. (2006), strong research and theory indicate that fluency alone doesn't ensure high achievement, but fluency is necessary for that achievement. Fluency develops when oral language, vocabulary, phonemic awareness, and decoding skills are mastered. Otherwise, decoding drains attention, leaving inadequate attention for constructing meaning from text.

The inability to decode words and read with fluency can have a severe impact on a child's reading experience which can be frustrating. Some researchers say that in order to build fluency a child must read more and more. However, struggling readers want to read less while their higher ability peers want to read more, thereby widening the gap known as the *Matthew Effect* (Gale, 2005). As the gap widens, struggling readers are at-risk for failure in future schooling and beyond. Providing students with opportunities to interact with rich, high interest text with repeated oral readings chorally or with partners is one way to address reading reluctance. Fluency is an important pathway to proficient comprehension and understanding of text at high levels (Pikulski & Chard, 2005).

Conclusion

It is evident that teaching students to read can be very daunting due to the multiple skills which need to be taught in tandem along with the varying backgrounds students may have. However, providing a multifaceted, systematic instruction can be very effective. Just like

practitioners of medicine who examine children based on developmental milestones to ensure proper human growth, educators are also practitioners of reading. Reading practitioners assess readers to ensure the milestones of literacy are being met as well as taking into consideration their cognitive development.

Vygotsky's "reciprocal teaching" comes to mind (McLeod, 2018). Well-developed, intensive, intentional, explicit instruction incorporating the essential components of decoding and fluency allows students to achieve at high levels. Teaching students the rationale behind the learning as well as using the "model, lead, test" design provides scaffolding for students and gradually releasing them to independently complete the task with corrective feedback. Lessons created with attention to design and delivery ensure effective reading instruction (Coyne et al., 2017).

CHAPTER III

METHODS

The purpose of this study was to examine the effectiveness of a specific intervention, interactive writing, on the reading fluency of second-grade reading students who are not yet meeting grade level achievement expectations in reading.

Design

The researcher used an experimental design for this study. The researcher formed two randomly selected groups of second-grade reading students. The sampling was convenient because the subjects were the students in the researcher's classroom; however, there was a rationale for selecting those students in that they were relatively homogenous in reading ability, with students reading from below to slightly below grade level.

The independent variable in this study was whether the students participated in the interactive writing intervention instruction. The dependent variable was performance on the Reading A-Z Timed Fluency Assessment.

The study also had a pretest posttest design component. The baseline data was collected by using the Reading A-Z timed fluency assessment before the intervention began. The intervention began at the end of the testing and continued for five weeks. The pretest scores were used to determine whether there were any differences in reading fluency between the groups prior to the intervention. The hypothesis was tested with only posttest scores; gain scores were not considered.

Participants

The students who participated in this study were second graders who read below or slightly below grade level expectations according to Scholastic Reading Inventory Assessment (2011). The researcher conducted this study in a second-grade class in a suburban elementary school in the mid-Atlantic region where students' are from middle to upper class backgrounds.

There were a total of 15 subjects in the study. Students ranged in age from seven to eight. The experimental group consisted of seven students, specifically four males and three females: and four Caucasian, two Hispanic, and one Asian student. The control group consisted of eight students, specifically seven males and one female; there were five Caucasian, two African American, and one Asian student.

The procedure for assigning students to the experimental group and control group was as follows. Each student with an assigned number was selected from a drawing. The first student who was randomly drawn was assigned to the experimental group, and the second student who was drawn was assigned to the control group. This procedure continued until each student was placed into a group.

Instrument

Reading fluency, speed, and accuracy, were measured with repeated readings from the Reading A-Z timed fluency assessment which is part of a leveled reading resource to enhance curriculum. The assessment was administered to each student in a private testing environment with limited distractions. The students orally read one passage which consisted of 119 words which was designed for one-minute readings with expression and accuracy to monitor progress in reading fluency.

There is a fluency passage for each level F-Z. This text leveling criteria measures text complexity and allows for differentiated instruction which supports Common Core State Standards. The standard for determining fluency rate takes into account the number and accuracy of words read in one minute as well as how many errors are made and how many times a student self corrects. Self-correction is part the criteria of the Reading A-Z timed fluency instrument. The number of times a student self corrects counts towards the WCPM.

A student's reading fluency is calculated by counting the total words read in one minute (WPM) and then subtracting the number of errors to find the word correct per minute (WCPM). Next, the WCPM is divided by WPM and multiplied by 100 in order to find the accuracy/reading rate percentage. The accuracy/reading rate percentage is then used to identify the student's fluency rate.

Rasinski, Hasbrouck, and Tindal (2017), leading researchers in the field of reading instruction, have provided oral reading fluency norms using researched-based fluency targets. These levels are also used with other core language arts programs such as Harcourt, Scott Foresman, MacGraw-Hill, Pearson.

The Reading A-Z Timed Fluency Assessment is a research-based reading resource recommended as a valid and reliable progress monitoring tool (Rasinski et al., 2002). Since its launch in 2002, Reading A-Z has earned many educational awards for its innovation in reading including Parents' Recommended Award, a Global Learning Initiative Award, and Teachers' Choice Award.

Procedure

The researcher, who was also the teacher in the classroom, provided general reading instruction to both groups and also led the treatment and control group in the intervention.

The researcher administered the Reading A-Z timed fluency assessment to all 15 students in the class to obtain baseline data. All students participating in the study were assessed for reading fluency at the beginning of the study in February.

The fluency scores at baseline were compared with an independent samples *t*-test. The mean pretest fluency score of the Interactive Writing group (Mean = 90.57, SD = 4.50) was not significantly different from the mean fluency score of the Independent Writing Group (Mean = 91.38, SD = 4.93) [$t(13) = .33, p = .75$]. Consequently, it was not necessary to control for any pre-existing group differences. The baseline data showed five of the participants of the treatment group were reading at the instructional level with an accuracy rate of 90%-94% and the other two were reading at the frustration level with an accuracy rate below 89%. The students in the treatment group were reading on level M which corresponds to middle of second grade. In the control group, three of the eight students were reading at the instruction level with an accuracy rate of 90%-94%, two were reading at the independent level with an accuracy rate of 95%+, and three were reading on the frustration level with an accuracy rate below 89%.

The study took place over five weeks during which time the groups received different treatments three times a week for 25 minutes. The experiment took place during the literacy block. During the literacy block, each lesson's focus was on vocabulary/spelling words with the same sound pattern (/ar/ as in car), phonemic awareness skills, fluency, spelling, and comprehension as well as the mechanics of writing (capitalization, punctuation, spacing, and grammar). The lessons were broken up into a three-part framework: five minute mini-lesson on sound patterns with the whole class, ten minutes of reading text with partners in their assigned group, and finally 15 minutes on interactive writing/independent writing. Both groups read the

same nonfiction pieces of literature; for example, the students read the article “Finding The Real Lorax” at the middle of second grade level.

The students broke up into Interactive Writers or Independent Writers after the five minute mini-lesson. After the partner reading in the interactive writing group, each pair of partners took notes such as the identifying the main idea, indicating connections that were made to the text, underlining key details, and circling words which needed more clarification. Then as a group, they would share the pen, under the direction of the researcher, to write the key details to support the opinion paragraph to teach others about the article/story. Students were led through an activity in which they wrote an opinion piece about the reading selection through interactive writing. The researcher started the process by writing on a board the opinion to be supported, for example, “I believe that the patos monkey inspired Dr. Seuss’ character the Lorax because....” Then the Interactive Writers took turns writing the key details, including reasons to convince the readers about the inspiration of the Lorax. The students and teacher often stopped along the way to reread and revise as necessary, looking for the proper conventions of writing (capitalization, punctuation, vocabulary, spelling, and spacing). After several sentences had been constructed, each child got a sentence strip to independently write the last sentence about the topic. To close, the children were provided opportunities to echo read and choral read the small paragraph that consisted of simple sentences which included words with /ar/. This allowed for the Interactive Writers’ goal to read with speed, accuracy, and automaticity in order to construct meaning.

In leading the instruction, the researcher tried to follow the guidelines of McCarrier et al. (2000), who suggested that a following a predictable the framework is the key to fast paced, highly motivating instruction. The teacher guides the group in composition to make sure it

contains a range of language and vocabulary, all the while involving students in the production of the message word by word paying close attention to letters, sounds, and punctuation and including immediate feedback.

While the children in the Interactive Writers group were engaged in their activities, the Independent Writers were silently, independently reading and rereading the same article/story. Using key details to support the opinion, they wrote a paragraph independently using the same sentence starter provided to the Interactive Writing group.

CHAPTER IV

RESULTS

The purpose of this study was to examine the effectiveness of a specific intervention, interactive writing, on the reading fluency of second-grade reading students who are not yet meeting grade level achievement expectations in reading.

An independent samples *t*-test was conducted with the independent variable being reading fluency; speed and accuracy were measured with repeated readings from the Reading A-Z Timed Fluency Assessment which is part of a leveled reading resource to enhance curriculum. The assessment was administered to each student in a private testing environment with limited distractions.

The students orally one read passage which consisted of 119 words which was designed for one-minute readings with expression and accuracy to monitor progress in reading fluency. Students ranged in age from seven to eight. There were a total of 15 subjects in the study. The experimental group consisted of seven students, four males and three females. Four are Caucasian, two are Hispanic, and one is Asian. The control group consisted of eight students, seven males and one female. There were five Caucasian, two African-American, and one Asian student.

The mean posttest fluency score of the Interactive Writing group (Mean = 90.71 SD = 7.82) was not significantly different from the mean fluency score of the Independent Writing Group (Mean = 96.13, SD = 3.80) [$t(13) = 1.74, p = .11$]. Please see Table 1. Consequently, the null hypothesis that there would be no significant statistical difference in reading fluency between the students in the Interactive Writing group and those in the Independent Writing group was retained.

Table 1

Means, Standard Deviations, and t-statistic for Reading Fluency Scores for Interactive Writing group and Independent Writing Group

Condition	N	Mean	SD	t-statistic
Interactive Writing	7	90.71	7.83	1.74 (NS)
Independent Writing	8	96.13	3.80	

NS = non-significant at $p \leq .05$

CHAPTER V

DISCUSSION

The null hypothesis stating that there would not be a statistical difference in reading fluency between those second grade students performing slightly below grade level who received interactive writing compared to those who were engaged in independent writing was retained.

Implication of Results

The results of this study showed the students who participated in the interactive writing task made growth in reading fluency, but their final performance was not significantly better than the control group who were writing independently. These results alone would not be enough to make curricular decisions to add an interactive writing component for the purpose of increasing reading fluency.

Observational data suggests that there were some benefits to interactive writing, but reading fluency may not have been sensitive to the intervention. However, interactive writing was engaging and motivating which provided more exposure to writing directly connected to text. All students in the group were enthusiastic about “sharing the pen” and the group worked together to compose pieces of writing linked to content. Interactive writing is cost effective and a good strategy for increasing motivation for and experience with writing.

Other observational data also indicate that teachers should be trained on the implementation of the intervention prior to the instruction of interactive writing to ensure that lessons are fast paced and explicitly taught so that learning is effective.

The researcher noticed that the independent writers had more freedom to write, but less supervision on the mechanics/grammar and rich vocabulary usage to be incorporated into the

composed writing. Consequently, the independent writers were getting less direct instruction on this aspect of the curriculum.

Overall, the researcher believes that the findings from this study support the student engagement and motivation for those who participated in interactive writing in comparison to the independent writing group. Even though the intervention did not yield significant results in terms of measured reading fluency, observational data suggest the need for continued analysis to see if engagement and motivation leads to long term reading achievement.

Theoretical Implications

According to Vygotsky a child learns through social interaction alongside a skillful tutor. The tutor provides a model of behaviors, in turn also provides verbal instructions and feedback for the learner. The zone of proximal development is the difference between what learners can do independently and what can be achieved with guidance and coaching from a skilled partner. In short, using cooperative learning strategies promote higher cognitive function (McLeod, 2018).

Using an explicit and systematic code of instruction like interactive writing in planning literacy lessons provides optimal instruction for all students due to its predictable framework which can be scaffolded to accommodate varied skill levels. Richardson (2009) uses a systematic framework which includes the four components of working with letters, working with sounds, working with books, and interactive writing. This is essential for making the connection between skills and strategies thus transitioning students to the consolidated phase of reading (Beech, 2005). Interactive writing utilizes growing decoding skills and phonics within the context of reading which has a reciprocal relationship with comprehension and makes possible silent reading understanding. Fluency is the bridge to comprehension (Pikulski & Chard, 2005).

The statistical findings of this study does not support the preceding theories that the instructional approach of scaffolding and cooperative learning such as interactive writing is beneficial to the improvement of reading fluency; however, observational data suggests there is value to the approach due to its fast paced, highly motivating, engaging , and explicit instruction. Since the study did not directly measure reading comprehension there is not any statistical evidence one way or the other in regards to whether or not interactive writing impacts reading comprehension.

Threats to Validity

The study includes a few threats to validity. One threat includes the loss of instructional time due to absences and school closings for inclement weather. Since there were two groups, both groups would have missed instruction. Due to these circumstances, the intervention could not take place at a high level of consistency which probably reduced the likelihood of finding significant results. .

The brief time between the pretest and posttest is also a threat to the validity. It is a threat to the internal validity because the interactive writing intervention may not have been long enough to make an impact on reading fluency. Since the interactive writing intervention did not include much direct practice with fluent reading, it is likely that if it were to affect reading fluency, it would take more than five weeks.

Another threat to internal validity was that students were not always consistently engaged in academic tasks. The personality conflicts in the interactive writing group took some attention away from the task even though it was not directly related to interactive writing. The researcher frequently needed to redirect attention back to the assignment thus resulting in less time spent

actively engaged in writing. On the other hand, students in the independent writing group received less direct teacher monitoring of on-task behavior.

The participant effect/novelty effect influenced the external validity of the study. The interactive writing group was excited for small group instruction every day due to the “novelty” of getting to do something special with the researcher. On the other hand, the independent writers were wondering if they would be getting a turn, at some point, to also participate in an interactive writing task. Overall, these circumstances also may have influenced the results.

Connections to Previous Studies

A similar study by Craig (2003) focused on the effectiveness of interactive writing on phonological awareness, spelling, and early reading development of kindergarten students. Craig found that phonological awareness depends on the development and progress of each child and thus suggests explicit instruction include intensive, deliberate, and planned instruction within the contexts of reading and writing based on the needs of the students.

In both studies, the students were from similar demographics. Like the current study, the treatment and control groups were randomly selected and were given both a pretest and posttest. In both studies, the students were exposed to authentic literature which required written responses through interactive writing.

In Craig’s (2003) study, the interactive writing group showed significantly better results in word reading and comprehension in comparison to the control group. Moreover, Craig concluded that a more contextualized instructional approach allows teachers to differentiate instruction which puts students at an advantage in achieving high levels of competency with reading skills.

Even though the students in the current study in the interactive writing group did not differ in performance compared to the control group, both Craig's (2003) study and this study provided explicit lessons deliberately planned to meet the needs of all students. This would be expected to impact comprehension and somewhat improve fluency. However, the lack of significant findings in the current study indicates using an interactive writing strategy which involves more reading and/or using a different outcome measure may be warranted.

Implications for Future Research

Future research could maintain its focus on improving fluency; however, the duration of the intervention could be extended from five weeks to ten weeks. Beginning earlier in the school year rather than at the end would allow more opportunities to collect data and examine growth over time to see if a lengthier intervention impacts reading fluency.

In a subsequent study, including a home component in which children reread the passages that they wrote in which a parent/guardian signs a log to indicate completion could also positively effect reading fluency.

Another study could explicitly measure whether interactive writing increases motivation. The study could also examine whether changes in motivation impacted reading fluency.

Conclusion

In summary, second grade students who were slightly below grade level expectations and participated in a five-week interactive Writing intervention did not perform better on the Reading A-Z Timed Fluency Test than the control group of similar students who were writing responses to text independently. Despite the fact that the interactive writing group did not significantly differ on the outcome measure, observational evidence indicates that students in this group were more excited and motivated to write about text. Therefore, it will be essential for future research

to examine the impact of interactive writing as a teaching tool to increase motivation, thus providing opportunities for high levels of engagement with authentic, rich topics and a variety of genres which is associated with higher reading achievement.

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