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# The Beliefs and Practices of Second Grade Teachers Who Implement Independent Reading and Its Effect on Students' Reading Achievement and Reading Volume 

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## The Beliefs and Practices of Second Grade Teachers Who Implement Independent Reading and Its Effect on Students' Reading Achievement and Reading Volume

As an attempt to raise the United States' achievement in reading, the No Child Left Behind Act (Bush, 2001) called for research-based practices and led Congress to sponsor federally funded grant programs that endorsed specific teaching methods (Armbruster et al., 2001; U.S. Department of Education, 2014; NICHHD, 2000a, 2000b). Many of these "researchbased practices" stemmed from the National Reading Panel's (NRP) report, which excluded correlational research that had consistently shown volume of reading as a key contributor to reading achievement (Allington, et al., 2010; Anderson, Wilson, \& Fielding, 1988; Cunningham \& Stanovich, 2003, 2001, 1997, 1991; Guthrie, Wigfield, Metsala, \& Cox, 2004; Taylor, Frye, \& Maruyama, 1990; Topping, Samuels, \& Paul, 2007) from their review and, as a result, concluded that there was not sufficient experimental evidence to support the practice of providing students with time to read at school (NICHHD, 2000a, 2000b).

In the present study, we examined an approach to individual reading in the classroom that was not included in the NRP's report. This approach is simply referred to as independent reading across the literature, and it relies on students' choice, challenge, and collaboration made possible through authentic reading experiences (Mere, 2005; Miller, 2002; Routman, 2003; Taberski, 2011; Towle, 2000). The use of independent reading was investigated in regard to reading volume and reading achievement along with teachers' beliefs about providing students with an allocated time to read self-selected texts each day in their classrooms.

Reading Volume

In their groundbreaking report Becoming A Nation of Readers (1985), Anderson, Heibert, Scott, and Wilkinson recommended that "the most useful form of practice is doing the whole skill of reading" (p. 17). Throughout changing perspectives of "best-practices" in reading instruction, research has continually identified reading volume as a key contributor to achievement in reading (Allington, 2006; 2009; 2013; Allington, et al., 2010; Anderson, Wilson, \& Fielding, 1988; Cunningham \& Stanovich, 1990, 1991, 1997, 2001, 2003; Guthrie, Schafer, \& Huang, 2001; Taylor, et al., 1990; Topping, Samuels, \& Paul, 2007). Simply increasing the frequency and time spent practicing the act of reading leads to increases in reading achievement by developing accuracy, fluency, and comprehension (Allington, 2006; Guthrie, et al., 2004). Cunningham and Stanovich (2003) underscored the value of time spent reading by stating "even the student with limited reading and comprehension skills will build vocabulary and thinking skills through reading" (p. 37). In a meta-analysis of 99 studies, Mol and Bus (2011) concluded that reading volume is associated with oral language skills, spelling, reading comprehension, and general knowledge.

The amount of reading students engage in has a reciprocal effect. The earlier and more often students read, the better readers they become; which elicits positive feedback, so that students read even more (Cunningham \& Stanovich, 2001). The more these students read, the more words they encounter, and the better readers they become. Conversely, students who struggle to read often read less. Struggling readers may read less as a result of lower motivation to read, may miss valuable instruction when they are pulled out for intervention, or may be assigned more skill sheets as opposed to being provided opportunities to apply new skills and strategies while reading (Allington, 2013; Stanovich, 2004). Cunningham and Stanovich (2001) argued that lack of exposure to text leads to delayed automaticity and speed in word
identification, slowing down the process and causing reading to be a taxing experience. The less these students read, the wider the gap becomes between proficient readers and poor readers (Stanovich, 2004). Stanovich (2004) coined the term "Matthew Effect" in reference to the phenomenon of the poor getting poorer and the rich getting richer. This same effect can be applied to reading where poorer readers read less and remain poor readers and better readers read more and become even better readers. Without increasing the amount of reading with which poor readers engage, the gap continues to widen.

## Motivation to Read

Although volume of reading has been shown to be an important contributor to reading achievement, motivation to read also plays an important part. Guthrie, Schafer, and Huang (2001) found that offering students time to read was not directly related to reading achievement, but the relationship was mediated by engaged reading, a construct that is comprised in part by motivation to read. Motivation to read has been linked to reading volume; children with higher motivation read the most and those with lower motivation read less (Baker and Wigfield, 1999; Guthrie, Metsala, \& Cox, 2004; Wigfield \& Guthrie, 1997). Additionally, motivation to read is a predictor of reading comprehension (Gottfried, 1990; Guthrie, et al., 2006).

If motivation is a key contributor to reading volume and reading comprehension, classroom teachers are tasked with creating literacy environments that motivate readers. Gambrell (2011) identified the following rules for promoting intrinsic motivation to read:

1. Reading tasks and activities should be relevant to students' lives.
2. Students should have access to a wide range of reading materials.
3. Ample opportunities should be provided for students to engage in sustained reading.
4. Students should have opportunities to make choices about what to read and how to respond to reading.
5. Students should have opportunities to share what they are reading with peers.
6. Students should have opportunities to be successful with challenging texts.
7. Classroom incentives should reflect the value and importance of reading.

These rules provide a useful guide for designing efforts to motivate students to read in the classroom.

## Programs to Motivate Readers

Sustained Silent Reading (SSR) (Pilgreen, 2000) and Accelerated Reader (AR)
Renaissance Learning, 2012) are two largely implemented supplemental reading programs that were aimed at motivating students to read. These two programs differ in their structure, but both sought to accomplish the same goal of encouraging students to read. SSR and AR were the focus of research on independent reading that was collected in the review of the NRP. Both are still common practices in some classrooms, despite the panel's conclusion that encouraging students to read more did not appear to have a significant impact on students' reading achievement (NICHHD, 2000b).

## Sustained Silent Reading

SSR (Hunt, 1970; McCracken, 1971; Pilgreen, 2000) is a program that was introduced by Lyman Hunt in the early 1960s and widely implemented for many years in an effort to increase students' reading in school (Moore, Jones, \& Miller, 1980). Pilgreen (2000) defined SSR as "a short time-span of approximately fifteen to twenty minutes during school when students are allowed to read whatever they like" (p. xvii). Gambrell (1978) described it as an opportunity for
students to practice reading skills with self-selected books. The overarching premise of SSR is to provide in class reading practice to all students, especially those who do not read outside of class.

SSR is a flexible program with only a few requirements. It requires the classroom to have access to a large selection of reading materials, so that students can select their own texts, such as books and magazines, to read (Gambrell, 1978; Moore, et al., 1980; Pilgreen, 2000; Routman, 2003; Taberski, 2011). Students are required to read silently for a fixed period of time in class each day with no interruptions, (Gambrell, 1978; Moore, et al., 1980; Pilgreen, 2000; Taberski, 2011). The teacher is expected to read silently while the students are reading, providing a model rather than holding students accountable for what they read (Gambrell, 1978; Moore, et al., 1980; Pilgreen, 2000; Routman, 2003; Taberski, 2011). SSR time ended with students discussing what they read with classmates (Pilgreen, 2000; Moore, et al., 1980; Pilgreen, 2000). This program was implemented under a variety of names and acronyms, such as Drop Everything and Read (DEAR) (Moore, et al., 1980) and Uninterrupted Sustained Silent Reading (USSR) (Hunt, 1970).

While research on SSR reflected positive student attitudes toward reading and positive effects on reading ability when combined with a regular reading program (Moore, et al., 1980), it has some drawbacks. Students are allowed to choose any book, regardless if they were able to read it (Routman, 2003; Taberski, 2011). Students may only pretend to read, since the teacher is engaged with his or her own book, rather than monitoring students (Routman, 2003; Taberski, 2011). Younger and struggling students often need to read aloud to comprehend a text, thus, making the requirement for students to remain silent unrealistic (Taberski, 2011; Wright, Sherman, \& Jones, 2004).

## Accelerated Reader

AR is a commercial computer-based reading program created by the publisher Renaissance Reading. Students are asked to read books at their independent reading level, and then take a reading practice quiz on the computer that contains comprehension questions from the book (Renaissance Learning, 2012). Depending on the difficulty of the book, quizzes contain 5, 10, or 20 multiple-choice items (Renaissance Learning, 2012). To facilitate students' selection of appropriately leveled texts, teachers and media specialists usually label their books using Renaissance's ATOS text leveling system (Cox, 2012). Teachers are able to use the data from quiz results to monitor practice and make instructional decisions (Renaissance Learning, 2012).

Although AR is widely implemented across the country (Cox, 2012; Renaissance Learning, 2012), it is not without its critics. Cox (2012) describes how many schools offer rewards and incentives to those students who achieve the highest number of points in the AR program. She criticizes the program for promoting extrinsic rewards for reading and failing to promote the intrinsic value of reading. Mallette, Henk, and Melnick (2004) found that AR did not motivate readers, but instead was related to lower self-perceptions as readers. Their findings also indicated that AR did not lead to an increase in recreational reading.

## Independent Reading

Independent reading is a component of a reading workshop, which includes other components such as a focus lesson, small group instruction, and share time (Hudson \& Williams, 2015; Mere, 2005; Miller, 2002; Taberski, 2011; Towle, 2000). The commonly agreed upon components of independent reading include a sustained amount of time for reading, using "justright books," participating in reading as a social activity, eliminating the requirement of silent reading, reading with a purpose, teacher-student conferences, and access to a large variety of
quality texts (Hudson \& Williams, 2015; Mere, 2005; Miller, 2002; Sanden, 2014, 2012; Taberski, 2011).

While Routman (2003) recommended setting aside thirty minutes or more each day for time spent reading, Taberski (2011) noted that the amount of time allocated should be the teacher's decision, and some teachers may decide to break their total time into two separate time periods (Taberski, 2000). Regardless of length, independent reading provides time to read independently following a focus lesson, in which the teacher demonstrates a reading skill or strategy (Hudson \& Williams, 2015; Mere, 2005; Miller, 2002; Routman, 2003; Taberski, 2011, 2000). Thus, readers have an opportunity for authentic practice of the skills and strategies modeled. This practice is often accomplished through written response using a written log, graphic organizer or self-adhesive notes to track their thinking (Hudson \& Williams, 2015; Miller, 2002; Routman, 2003; Taberski, 2011, 2000; Towle, 2000).

Books are self-selected, but appropriately challenging, having received instruction and guidance from the teacher about selecting an appropriate, or "just-right," book (Hudson \& Williams, 2015; Mere, 2005; Miller, 2002; Routman, 2003; Taberski, 2011, 2000). Hudson and Williams (2015) described their use of the "Five Finger Rule" to scaffold students' book selection. To use this strategy, students open to a page in the middle of a self-selected book and begin to read. For each unknown word on the page, students raise one finger. If five fingers are raised before completing the page, the text is considered too hard.

Students may read alone or with partners (Sanden, 2014; Taberski, 2011, 2000) making the reading a social activity and providing opportunity to work collaboratively. While silent reading is a goal, productive noise often results as students share reading experiences and/or subvocalize as they read (Taberski, 2011; Wright et al., 2004).

Student-teacher reading conferences with individual students are conducted during independent reading. They provide the opportunity to complete reading assessments, provide scaffolding or provide individualized instruction (Hudson \& Williams, 2015; Mere, 2005; Miller, 2002; Routman, 2003; Taberski, 2011, 2000; Towle, 2000). Routman (2003) provided a framework for conducting reading conferences, which includes a series of questions for the teacher to ask about why the student chose a book, whether it was a good fit, retelling what was read so far, and setting new reading goals. Hudson and Williams (2015) reported using this framework and that the conferences provided "insight into students' thinking, which may have otherwise gone unnoticed" (p. 534). Porath (2014) discussed strategies that teachers can apply when conferring with students, including being aware of the impact of past experiences and present interactions with the student, asking questions about students' thinking, probing for further explanations, and providing wait time for the student to join the conversation.

Lastly, independent reading requires teachers to have an excellent, organized classroom library including a variety of text types and genres (Mere, 2005; Routman, 2003; Taberski, 2000; Towle, 2000). Yi and colleagues (2018) found that while installing classroom libraries did not directly affect students' reading achievement, it did have an impact on students desire to read and their reading habits. Overall, the format of independent reading provides a framework for engaging readers, according to the seven motivational strategies recommended by Gambrell (2011).

## The Present Study

Sanden $(2012,2014)$ found that highly effective reading teachers valued providing time for students to read in class each day; in other words, the teachers valued the quantity of in class reading in which students engaged. The purpose of the present study was to explore the beliefs
and practices of teachers who implement independent reading in their classrooms. We sought to understand their beliefs about implementing independent reading and describe what independent reading looks like in their classrooms. Further, we also investigated the effects of independent reading on second grade students' reading achievement and volume of reading. Attention was given to whether participation in independent reading affected lower achieving readers more than higher achieving readers. A review of literature has shown a reciprocal relationship between volume of reading and reading achievement, referred to as "The Matthew Effect" (Stanovich, 1986; 2004). The consequences of this effect are that higher achieving students are reading more and, therefore, continuing to achieve at high levels while the lower achieving students are reading less and, therefore, failing to show growth in their achievement. If higher achieving students already have a high volume of reading, then independent reading may not have as large of an effect on their reading achievement. Conversely, if lower achieving students do not have high volumes of reading, perhaps the allocated time for reading, scaffolding, and social aspects of independent reading will increase their volume of reading and, as a result, their reading achievement to a greater extent than higher achieving readers. In other words, students who need time for reading "just-right" books and scaffolding from the teacher may benefit more than those who are not in need of this support. Through this research we hope to contribute to the growing body of research on independent reading.

The following research questions were addressed:

1. What are teachers' beliefs about independent reading in their classrooms?
2. What does independent reading look like in classrooms?
3. Does participation in independent reading significantly affect students' reading achievement?
4. Does participation in independent reading significantly affect students' volume of reading?
5. Assuming that higher achieving readers read more, does independent reading increase the reading growth of lower achieving readers to a greater extent than higher achieving readers?

## Methods

A mixed methods research design was used to combine strengths of qualitative and quantitative data to provide more complete answers to the research questions (Johnson, Onwuegbuzie, \& Turner, 2007). Qualitative data were collected through interviews and classroom observations to explore the beliefs and practices of teachers who implemented independent reading. For the quantitative component, a nonexperimental comparative design was used to compare classrooms where independent reading was implemented with those where independent reading was not implemented.

## Participants

Participants included six second grade teachers, purposefully selected from three Title I schools in the same district in a Southeastern state (see Table 1). Two participants (one using independent reading and one not using independent reading) were selected from each of three school types-rural, suburban, and urban. The six participating teachers taught a total of 128 students, and all of the teachers used the Accelerated Reader program, as mandated by the school district. Teachers were matched by schools and grade level but could not be matched on their years of experience or education level; therefore, teachers were compared statistically. A multilevel mixed model analysis revealed no significant variability between teachers. The three selected teachers who did not implement independent reading did not have a block of time set
aside for students to read independently each day; students were expected to read independently during morning work, after finishing work early, as a center activity, or at home. The three selected teachers who implemented independent reading in their classrooms agreed to be interviewed and observed during their independent reading time.

Table 1

## Research Participants

| School | Teacher | Highest Degree | Teaching <br> Experience | Independent Reading <br> Approach | Number <br> of <br> Students |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A | Master's | 16 years | Yes | 22 |
|  | B | Master's | 9 years | No | 19 |
| 2 | C | Master's | 2 years | Yes | 20 |
|  | D | Bachelor's | 17 years | No | 18 |
|  | E | Bachelor's | 3 years | Yes | 20 |
|  | F | Master's | 11 years | No | 24 |

## Instrumentation

Four data collection instruments were used in this study. The pretest and posttest reading achievement data were obtained with the STAR Reading Enterprise test (Renaissance Learning, 2015b), as this data were readily available through all participants' participation in the AR program. The AR program (provided a report of the number of words read in AR books throughout the first semester of the 2015-2016 school year, which served as the measure for reading volume. Qualitative data for research questions four and five were collected using a researcher-created interview guide and classroom observation guide.

Interviews and Classroom Observations. A set of interview questions and a classroom observation guide were used to interview and observe the three teachers who implement independent reading in their classrooms. The interview guide consisted of ten open-ended questions (see Figure 1), which were intended to steer but not restrict the interview process. Interviews lasted between 15 and 20 minutes each. Classroom observations were guided by a list of independent reading components-time for reading, "just-right" books, social experiences around reading, elimination of the requirement of silent reading, reading with a purpose, studentteacher conferences, and access to a large variety of texts. The lead researcher recorded observations related to each component on the list.

## Teacher Interview Guide

1. What are your beliefs about the amount of reading students should do?
2. What are your beliefs about providing class time for students to read?
3. Are there any challenges that you encounter when attempting to make time for students to read?
4. What types of reading do your students do in your classroom?
5. What happens during a typical reading conference?
6. Do you connect your independent reading activities to the reading lesson? How?
7. Do you follow a teacher's edition to teach reading? If so, how closely do you follow it? Why?
8. What support do you receive as you attempt to implement quality reading instruction in your classroom?
9. What additional support would be helpful for teachers to implement independent reading in their classrooms?
10. What resources do teachers need in order to implement the independent reading in their classrooms?

Figure 1. Interview Questions
Reading Achievement and Growth. Reading achievement and growth in reading achievement were both measured using the STAR Reading Enterprise test (Renaissance Learning, 2015b); a computer-adaptive test administered at the beginning of each academic
quarter to students with at least 100-word sight vocabularies in order to monitor reading comprehension progress. It is a fixed-length test ( 34 items ) in multiple-choice format that usually takes less than 30 minutes. Renaissance Learning (2015b) reported an overall internal consistency of .97 and a test-retest reliability estimate of .93 for the STAR Reading Enterprise test. Concurrent, retrospective, predictive, and construct validity were also demonstrated by Renaissance Learning.

The STAR Reading Scaled Scores, criterion-referenced test was used to collect data indicating location of teachers' scores on the Raush ability scale; use of this test relies on maximum likelihood estimation and conversion to scaled scores that range from 0 to 1400 (Renaissance Learning, 2015a); these scaled scores served as the measure of reading achievement. Growth percentile scores, norm-referenced data showing growth from one test to the next by comparing students' growth to other students at the same grade level (Renaissance Learning, 2015a), ranging from 1 to 99 , served as the measure for growth in reading achievement.

Reading Volume. Renaissance Learning's Accelerated Reader (2012), a computer-based progress monitoring and practice tool that tracks student progress in reading comprehension used by each school in the sample district, and this use encourages students to read books on their level of reading achievement and take a computer-based reading quiz to evaluate their level of understanding (Renaissance Learning, 2012). Scores from 3-, 5- and 20-item quizzes provided data for each student (based on books read, average percent correct on quizzes, the levels of books read, and the number of words read). Allington (2009) recommended measuring reading volume using the number of words read because it is a more accurate measure than measuring time spent reading or the number of pages read. Therefore, the number of words read was used
as a measure of reading volume for this study. An Accelerated Reader Word Count Report was generated for each student participant, and the total word count for the first semester of the school year served as the measure for reading volume.

## Data Analyses and Results

## Qualitative Analyses and Results

The first two research questions were explored using qualitative methods, specifically interviews and classroom observations. These two questions inquired about the beliefs of teachers who implement independent reading and what independent reading looks like in second grade classrooms. The three participants who implemented independent reading participated in one interview and their classrooms were observed on one occasion during their independent reading time. Pseudonyms were assigned to each of the interviewees, Jacky, Andrea, and Gwen. Jacky, a master teacher from a small rural school, had 16 years of teaching experience. Gwen, also a master teacher, taught at a large urban school and had two years of teaching experience. Andrea was from a large rural school and had three years of teaching experience. The data gathered from these teachers and their classrooms helped paint a picture of what independent reading looks like in second grade classrooms and of the foundation of teachers' beliefs upon which those reading practices are built.

Research question 1. Research question one inquired about teachers' beliefs about using independent reading in their classrooms. This question was investigated through the use of interviews with each of the teachers who used independent reading in their classrooms. The interviews were transcribed and saved in a Microsoft Word document. Observations were recorded on a classroom observation guide. All qualitative data were uploaded to MAXQDA software for coding. The first stage of the coding process allowed the codes emerge inductively
from the data, rather than fitting preexisting categories to the data. The transcripts were coded line-by-line to begin to uncover meaning directly from the data. The second stage was focused on the most significant and frequent codes that were identified during the line-by-line coding. In this analysis procedure, the codes were categorized into more meaningful or significant groups using focused coding. During the third stage of coding, we developed major categories and subcategories using the categories generated during focused coding. Finally, we used theoretical coding to develop a theory of how each category and subcategory of codes were related to one another and built a theoretical framework.

Through this analysis, two overarching themes were identified. Quantity of reading and quality of reading were valued by the teachers who implement independent reading in their classrooms. The teachers cited the following as priorities: providing time for reading at home and at school and providing support during in-school reading time by setting a purpose for reading, conducting reading conferences, and guiding appropriate text selection. Table 2 illustrates the two themes -- quantity of reading and quality of reading -- that emerged from teachers' beliefs about the Independent Reading Approach.

Table 2

## Samples of Teachers'Statements in Support of Quantity and Quality of Reading

| Teacher | Quantity of Reading | Quality of Reading |
| :--- | :--- | :--- |
| Andrea | "I believe that the more they read <br> both at school and at home, that it just <br> helps them better with their skills of <br> reading and with their <br> comprehension." | "A lot of kids can sit there and stare at <br> a book and pretend they're reading. <br> It's also important to know what level <br> they're on and then what specific <br> skills that I can help them with to <br> [help them improve]." |
| Jacky | "I believe that students should read at <br> any opportunity they have. The more <br> they read, the more they'll succeed; <br> the better they are in writing, the | "There are other things that you can <br> incorporate into the independent <br> reading time. As you meet with them |
|  |  |  |

better they are with using their strategies of decoding and context clues. I believe that any time they have, they should be reading."

Gwen We normally read right after they eat breakfast [in class]. They get their morning work and then they're reading. I don't have any objection to them reading when we're not doing anything. I say, 'If you're done, you need to take out a book."
during independent times, make sure they're using those strategies."
"It's not necessarily that they read more, it's if they're reading whatever they're reading, and they're reading the right way. It's the quality of the reading."

Quantity of reading was referenced on several occasions throughout the interviews.
Though all teachers agreed that students should read outside of school, they also agreed that it is important for students to engage in reading while at school. The teachers cited reasons for providing time to read in school, including students not wanting to read at home, not having time to read at home due to other activities, or not having appropriate reading materials at home. Each of the three teachers admitted providing at least 20 minutes of sustained reading time per day for their students to read in class.

Quality of reading was indirectly cited on several occasions. Teachers described how they believed that students' individual reading should be monitored through reading conferences, which included assessment opportunities and opportunities to provide specific guidance and feedback to students on their reading progress. Additionally, selection of appropriate texts seemed to be important to the teachers, as they referenced encouraging students to select texts of certain reading levels or providing explicit instruction on how to choose a "just-right" text. Setting a purpose for reading by assigning some sort of reading response activity was also a common trend among the three teachers. These beliefs all seemed to be concerned with students who are "fake" reading or pretending to read so that they can take an AR quiz. These beliefs also
reflected the teachers' desires for students being engaged in appropriate practice that would help them grow as readers.

## Research Question 2

With research question two, we asked what independent reading looked like in second grade classrooms. Although this research was limited to one classroom observation per teacher, which may not have reflected all independent practices in the classrooms, the interviews provided additional insight into the daily practices of independent reading. Observations of each classroom during independent reading also confirmed that each of the teachers utilized the essential components of independent reading and illustrated how each of the teachers put the components of independent reading into practice.

Upon entering each of the classrooms during their independent reading time, there was a sustained level of activity generating purposeful movement and conversation. Students' familiarity with procedures and expectations was obvious. A productive hum filled each room as some students shared their books with friends or the teacher, while others read aloud to themselves or to partners. Each classroom seemed to run like a well-oiled machine, as students immediately retrieved the needed materials and began to read and/or select books.

Some students selected books they already had in their desks, while others visited the school library or selected books from classroom libraries that were organized by topic and author. Students selected books of their choice but also used either a leveling system or another strategy taught by the teacher as a guide. One way that Andrea supported her students' text choice was to provide them with a plastic bag of "just-right" books that students had selected with her guidance. Jacky did not provide bags of books to her students, but she made sure to monitor her students book choice during reading conferences. Some students were drawn to
books related to the content they were learning at school. During one reading conference, a student shared that she selected the book My Teacher for President (Winters, 2004) because the class had been learning about American symbols during Social Studies.

Two teachers allowed their students to sit on rugs, in nooks, in windowsills, and on pillows around the classrooms, while one teacher had them sit in their assigned seats for independent reading. In both settings, students were observed sharing their books with a nearby classmate. In one classroom, two boys were observed reading a picture book together and discussing the illustrations. Students were observed whisper reading and discussing their reading response activities. All students set a purpose for their reading by completing a reading log and completing some sort of reading response activity, such as filling in a main idea graphic organizer, writing a summary of a chapter, or drawing a picture of the main character. Jacky reported that many times she will assign a specific response activity, depending on which new skill or strategy was taught, but she often allowed students to select a response method of their choice. Students in two classes were observed keeping their reading response activities in notebooks. These notebooks appeared to be a source of formative assessment, as the teachers left notes and questions for the students on some pages.

All three teachers held reading conferences with a selection of their students. The teachers cited reading assessment data as their source of decision-making for scheduled conferences and conference topics. Gwen sat at a kidney-shaped table and called students individually for conferences; while Jacky and Andrea traveled around the room with a notebook to confer with students. A common method of initiating conferences was through questioning. Common questions asked included "What are you reading?" "What is this book about?" and "How are you enjoying this book?"

Each student-teacher reading conference addressed different topics. Andrea described her reading conferences as follows:

Basically, I sit with students for a few minutes and they pick up right where they were reading. I would tell them what we worked on the last time that we met and what skills they're working on, and then I ask them to show me that they're practicing. I look for a few different things that they're struggling with, and then also I make sure I write down the name of their book that they're reading and the level, and I make sure that it is just right book for them, that it's a good fit. If not, we talk about it, and then [I show them] how to pick that just right book for them so that they're not struggling, or that it's not too easy.

Students took advantage of their time with the teacher by pointing out key words that had been discussed during instruction and asking for help in areas where they struggled. One student was observed telling Jacky about a problem with a particular sound-spelling pattern, "I'm having issues with $t h$. . On another occasion, a student could not explain the meaning of the words mummy or Egypt, so Jacky guided the student in choosing a book where the student had a little more background knowledge.

## Quantitative Analyses and Results

Statistical Program for the Social Sciences (SPSS) was used to conduct the quantitative data analysis, including data screening, multivariate analysis of covariance (MANCOVA), and analysis of covariance (ANCOVA). During screening, the total number of cases ( $\mathrm{N}=128$ ) was reduced to 127 when one case was deleted due to missing data. Univariate and multivariate outliers were checked using box plots and Mahalanobis Distance and resulted in no outliers (Tabachnick \& Fidell, 2013). The assumption of linearity was tested using a matrix scatter plot,
and the assumption was met. The assumption of homogeneity of variance-covariance matrices and was evaluated in a custom model Multivariate Analysis of Covariance using Box's Test of Equality of Covariance Matrices and was met. The assumption of homogeneity of regression slopes was analyzed by interpreting the Tests of Between Subjects Effects table and was met.

A Pearson's $r$ was computed to assess the relationship between the dependent variables reading volume and reading achievement to determine if a moderate relationship existed. As suggested by past research, there was a strong positive correlation between the two dependent variables, $r=.70, N=127, p<.001$. Because of this correlation, a multivariate analysis of covariance (MANCOVA) was used to address the first two research questions. This statistic allowed for analysis of the effects of independent reading on a linear combination of reading volume and reading achievement, while controlling for initial reading achievement. However, the overall multivariate analysis was not statistically significant, $F(2,123)=1.0, p=.37$. Therefore, the classroom reading method (independent reading and no independent reading) did not differ significantly on the linear combination of reading volume and reading achievement.

Research question 3. A one-way ANCOVA was used to investigate whether participation in independent reading significantly affected students' reading achievement. Classroom reading method (independent reading and no independent reading) was selected as the independent variable, the pretest as the covariate, and reading achievement as the dependent variable. The main effect was not statistically significant, $F(1,124)=2.003, M S E=3992.69, p=$ .16. Therefore, the classroom reading methods did not significantly differ on reading achievement, when controlling for initial reading achievement at the pretest.

Research question 4. A second one-way ANCOVA was used to investigate any effects of the independent reading on students' reading volume. Classroom reading method
(independent reading and no independent reading) was selected as the independent variable, the pretest as the covariate, and reading volume was the dependent variable. The main effect was not statistically significant $F(1,124)=.013, \mathrm{MSE}=.125, p=.91$. Therefore, the classroom reading methods did not significantly differ on reading volume, when controlling for initial reading achievement at the pretest.

Research question 5. A two-way analysis of variance (ANOVA) was used in order to determine whether independent reading resulted in any differences in the growth in reading achievement of lower achieving readers and higher-achieving readers. Students were sorted into achievement groups, by computing standardized scores using the pretest scores. The new variable, reader type, was created by coding $z$ scores greater than one as $2, z$ scores less than one, but greater than negative one as 1 , and scores less than negative one as 0 . Cases coded as 0 represented lower achieving readers, 1 represented average achieving readers, and 2 represented higher achieving readers. Independent variables included classroom reading method (independent reading and no independent reading) and reader type (lower readers, average readers, and higher readers). Student growth percentile scores from the S.T.A.R. Reading Enterprise test were used as a measure for the dependent variable, reading growth.

The main effect of classroom reading method was not statistically significant, $F(1,121)=$ $0.02, p=.90$. Therefore, the two groups (independent reading and no independent reading) did not significantly differ on growth in reading. The main effect of reader type was also not statistically significant, $F(2,121)=0.29, p=.75$. Thus, the three types of readers did not significantly differ on growth in reading. The interaction between type of reading and reader type was not statistically significant, $F(2,121)=0.62, p=.54$. Therefore, participation in independent
reading did not significantly increase reading growth of lower achieving readers to a greater extent than higher achieving readers.

## Discussion

Our aim was to determine whether students' reading achievement and reading volume were impacted by independent reading. When the NRP stated that there wasn't conclusive research available to support independent reading during the school day, the message interpreted by many educators and decision makers was that independent reading in the classroom didn't matter (Pearson \& Gooden, 2010). Many educators felt pressured to shift from independent reading in their classrooms to other activities that were described by the NRP as research-based (Allington, 2005). However, Sanden $(2012,2014)$ siphoned through a large number of teachers to identify a sample of highly effective literacy teachers and discovered that they all implemented independent reading in their classrooms.

The present study explored the beliefs about independent reading of teachers who implement it in their classrooms. The results showed that the teachers who implemented independent reading valued both the quantity of reading that their students engaged in and the quality of that reading. In other words, just providing the students with time to read wasn't enough, they felt that the students needed to be reading texts that they could read with success under the guidance of the teacher through student-teacher reading conferences. The results are supported by Topping and colleagues (2007) who reported that both quality and quantity of reading were important factors for influencing reading achievement. The results we found are similar to those of Sanden (2014), who found that most of the teachers connected their independent reading to their reading instruction. The teachers in Sanden's (2014) study also valued reader accountability that showed that the students were learning.

This study also looked at practices of independent reading as observed in three second grade classrooms. Findings showed that students were not silent during independent reading, but instead were busy reading aloud or discussing books with their friends. This finding was similar to Sanden's (2014) observations of independent reading, where students were encouraged to socialize with other students about their books. Moses and Kelly (2018) developed a reading motivation intervention, based on Guthrie and colleagues' (2012) engaged reading framework, that involves social interaction among peers related to reading. As part of their intervention, first grade students engaged in partner reading and discussions during independent reading time, which was related to positive views toward reading (Moses \& Kelly, 2018).

As observed in classrooms, students in the current study were provided access to a variety of texts in their classroom and in the school library. Students were observed selecting books from a variety of locations, such as "just-right" book bags, classroom libraries, and school libraries during independent reading time. The teachers reported guiding that choice through teaching book selection strategies and using various text leveling systems. The teachers in Sanden's (2014) study also valued giving students a choice within reason, and they also used text leveling systems to help guide students' choices. However, access to text alone may not be enough to impact reading achievement. In a randomized controlled trial, Yi and colleagues (2018) provided classroom libraries to the treatment group and found improved affinity toward reading and reading habits, there was no overall effect on reading achievement and even a negative effect on confidence in reading.

During independent reading, teachers in the study engaged in teacher-student reading conferences. Observations from the present study showed that all teachers engaged in reading conferences with their students, which was also true in Sanden's (2014) study exploring the
practices of highly effective teachers. Interviews with teachers revealed use of data about the student and open-ended questions as recommended by Porath (2014) during reading typical reading conferences. The teachers also reported assessing students, taking advantage of teachable moments, prompting students to apply new strategies, and setting new reading goals.

The interviews and observations of teachers who implemented independent reading in their classrooms aligned with findings of Sanden (2014). This provides evidence that not all teachers were swayed by the findings of the NRP, but some are guided by their own beliefs about reading and the outcomes that they observe in their own classrooms. The teachers in the present study reported strong beliefs about the importance of providing time for students to read, as well as the importance of the quality of reading with which students are engaged. These beliefs were observed in practice by these teachers as they implemented independent reading.

Quantitative results showed that independent reading did not have statistically significant effects on students reading achievement or reading volume. Since students in both groups participated in the AR program, all students were probably encouraged to read often, which led to similar reading volumes. Fisher and Frey (2018) found similar results because their study became contaminated when teachers in the comparison group began to talk with other teachers in the school and implemented the components of the intervention on their own. Given that there was not a statistically significant difference in reading volume between the two groups in the present study and that there was a significant positive correlation between reading volume and reading achievement, no statistically significant difference in reading achievement was not surprising. In a study investigating a similar approach to independent reading, Scaffolded Silent Reading, Reutzel and colleagues (2008) also did not find statistically significant results. The findings suggest that perhaps the quantity of reading is more important than the approach to
independent reading. Taylor and colleagues (1990) found that simply the time spent reading at school contributed to reading achievement. Additionally, Allington and colleagues (2010) found that providing students with books for summer reading impacted reading achievement. The small sample size and the short research timeline (one semester) may have also contributed to the results not being statistically significant.

Additional research with larger sample sizes, longer research timelines, and a more controlled environment without the presence of the Accelerated Reader program is needed. We recommend that future research compare the effects of independent reading across grade levels to determine if it is more effective in certain grade levels. Furthermore, we recommend that future research investigate the types and duration of training that teachers need to for implementing independent reading in their classroom.

## Limitations

There were some limitations of the current study, including the following:

1. The use of purposive sampling rather than random sampling limits the ability to generalize results directly to the target population.
2. The use of a comparative design is not as strong as a randomized experimental design.
3. Although the reported reliability of the instruments is known, they are subject to some error and their reliability with the participants in this study was not known before the study was conducted.
4. The nesting of students within classrooms with different teachers and teachers within different schools causes uncontrolled variability among the participants.
5. The teachers who were investigated in this study were recommended, based on the presence of independent reading in the classroom or not. The lack of observations in the comparison
classes limited the researchers with the ability to compare literacy practices that may impact reading volume and reading achievement.

## Conclusion

The findings showed that teachers who implement independent reading in their classrooms value both the quantity and quality of reading at school. Observations of their classrooms showed how these teachers put those beliefs into practice, and the findings were similar to those of Sanden (2014). This study sought to reexamine the impact of independent reading on reading achievement through the lens of a different approach to independent reading at school than was the focus of the NRP's report. While no statistically significant results were found, additional research with larger sample sizes and longer timelines is needed to determine the true effectiveness of independent reading at school.

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