Read Like you are Talking to a Friend: The Effects of Using a Systematic Approach, Including Teacher Modeling, Repeated Reading, and Corrective Feedback on the Reading Fluency and Prosody of Students in a 6-9-year-old Public Montessori Classroom

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Read Like you are Talking to a Friend: The Effects of Using a Systematic Approach, Including Teacher Modeling, Repeated Reading, and Corrective Feedback on the Reading Fluency and Prosody of Students in a 6-9-year-old Public Montessori Classroom

An Action Research Report

By Catherine Munro and Julie Foltmer
Read Like you are Talking to a Friend: The Effects of Using a Systematic Approach, Including Teacher Modeling, Repeated Reading, and Corrective Feedback on the Reading Fluency and Prosody of Students in a 6-9-year-old Public Montessori Classroom

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in fulfillment of final requirements for the MAED degree

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Advisor ____________________________                           Date ___________________
Abstract

The purpose of this study was to determine effective ways to improve fluency among lower elementary Montessori students. The study was comprised of 33 students ages 6-9 who attend public Montessori classrooms in North America. The field of research on reading fluency and comprehension was surveyed as a background to support this action research study, which utilized an experimental design, collecting quantitative data through student-generated artifacts. The researchers implemented a reading block into their Montessori classrooms. The large and small group lessons focused on modeled readings from the teacher, repeated readings, and corrective feedback. Data was collected at the beginning and end of the study. Data included words read correctly after three reads, comprehension and fluency scores, and two student self-evaluations rating their knowledge and feelings about reading. Students made progress in all areas measured, including fluency, comprehension, and feelings about reading. This research highlights the benefit of a designated daily reading block and explicit reading instruction, incorporating teacher modeling, repeated reading, and corrective feedback.

*Keywords:* fluency, prosody, accuracy, automaticity, decoding, Montessori, modeling, feedback
The classroom hums like a high-end sushi restaurant. Everyone knows where to be and what to do. Mats define the workspaces where children purposefully attend to their work. Materials are being swept off and delivered back to shelves succinctly, arranged with care and precision. A visually calm, taciturn directress circles around the attentive children, many of whom don't register her presence. Their work is their world at this moment. Some children work alone, others problem solve together. The children are of differing ages. Their chronological age offers no barriers to their connections to each other. The flow of information is fluent, effortless even. This is a Montessori classroom.

The fluency of oral communication and body language in a Montessori classroom can at times mask unseen gaps in learning and knowledge, even in the area of language and communication. Communication is how human beings connect with each other, which is necessary for survival and to thrive as a highly social species. From the advent of the written word to modern day technology, the ability to decipher meaning from text has been and will continue to be, a major form of communication.

Children often begin the important journey of learning to decode words and make meaning of text between the ages of three and six years old. What ideally emerges from these first steps is an ability to read fluently. Opinions differ regarding the definition of reading fluency and what components should be included. Some notable experts in the field (The National Reading Panel, 2000, Rasinsky, 2012, Schwanenflugel & Benjamin, 2017) all include accuracy and prosody (reading with expression) in their definitions. By reading words accurately and with speech-like phrasing, the chances of understanding what has been read is much greater. Children better follow the plot of a storybook read fluently by their teacher than through a word-by-word approach of a struggling reader. Learning to read fluently has a far-reaching impact on a
student’s life both in and beyond school. A child’s confidence as a learner, the ability to access information across subject areas, and the ability to communicate effectively are all impacted by the ability to read fluently. The National Reading Panel (2000) stressed the importance of fluency for all readers.

Fluency is closely tied to comprehension, which many would argue is the goal of reading (Pinnell et al., 1995 as cited by Pikulski & Chard, 2005, Suchey, 2009 and Smith, Cummings, Nese, Alonzo, Fien Baker, 2014). Without fluency, readers are stalled by sounding out words, reading words incorrectly, and are ultimately thwarted in their effort to understand what is being read. Elliot (1967) found through his research that Montessori classrooms put an exclusive focus on phonics instruction (using letter sounds to decode words) when teaching reading. The researchers of this study found that their own Montessori training emphasized phonics to teach reading. When referencing their own Montessori albums, which define and elaborate this unique pedagogical method, they additionally found that references for reading instruction were rooted in a phonics approach. The researchers are both Montessori teachers with lower elementary (ages ranging from 5-9) classrooms in British Columbia and Illinois.

Through teacher observations and reading assessments, they have determined that some of their students are not reading fluently at grade level. What emerged from their assessments was a wide range of abilities among students from confident and independent on one end to the need to sound out words, replacing words that are incorrect, and an inability to comprehend what is being read on the other. This gap in ability speaks to a need to focus instruction on fluency. The researchers have used a study of the literature to inform and construct an approach that honors Montessori pedagogy but incorporates some best practices for reading instruction.
Research has shown that high-quality reading instruction should encompass modeled readings from the teacher, repeated readings, and corrective feedback. Teacher modeling consists of the oral reading of high-interest stories, read with fluency and prosody (expression). Rasinski (2010) argues that modeling quality oral reading provides many benefits to emerging readers. Multiple studies have shown the benefits to repeated reading (Ardoin, Morena, Binder & Foster, 2013, Bullerman & Godinez, 2016, Dowhower, 1987 cited in Ardoin et al., 2013, Hanzal, 2013, Hawkins, Marsicano, Schmitt, McCallum & Musti-Rao, 2015). Corrective feedback keeps readers on track as they develop their skills. Corrective feedback includes teacher provided support with decoding words (Caulkins, 2001, Hawkins et al., 2015) and also allows for feedback on prosody (Curenton & Kennedy, 2013, Griffin, 2002).

Based on information gained from the literature review, the researchers will implement a daily reading block into the Montessori classroom setting. Students will meet in small groups with the teacher, who will focus instruction on three key instructional practices: teacher modeling, repeated reading, and corrective feedback. The same structure and assessment tools will be used by both researchers. Data will be collected through rubrics, questions, and Likert-type scales. The data will measure reading accuracy, prosody, comprehension as well as reader self-reflections. Through the reading block intervention, the researchers will look to see what effects modeling, repeated reading, and feedback have on reading accuracy, prosody (noted by expression, phrasing, and use of pausing), and comprehension. Additionally, the researchers are looking for any correlation between reading ability and student attitudes and knowledge about reading.

This Action Research included 33 students ranging from grades one to three, from two different public Montessori Schools. School A is a public school located in British Columbia.
The population of this semi-rural school is of mixed socioeconomic status. The kindergarten through grade seven Montessori program comprises 8 out of 20 divisions and is a choice program. Students apply and are accepted based on a lottery system. School B is an ethnically diverse public Montessori school located in Rockford, IL. The school district is the third largest district in Illinois. This school also admits students through a lottery system.

The Montessori language curriculum puts a great emphasis on phonics-based approaches to teaching reading. While phonemic awareness is one part of becoming a competent reader, reading whole words and phrases accurately and with expression in order to comprehend what is being read is key to overall fluency. The possible discrepancy within Montessori pedagogy suggests a need to look for supplemental approaches to reading fluency instruction in order to address word accuracy, prosody, and comprehension. There is an opportunity to gather and interpret data from guided reading instruction within the choice-based Montessori approach. The researchers will seek to answer the following question through this Action Research project: What effect does the use of a systematic approach, including teacher modeling, repeated reading, and corrective feedback have on reading fluency (automaticity and prosody) of 6-9 year old students in a public Montessori classroom? Additionally, the researchers seek to ascertain whether student attitudes and perceptions about reading correlate with fluency ability.

**Review of Literature**

**What is Reading Fluency?**

Reading fluency is defined as reading with speed, accuracy, and prosody according to the National Reading Panel (2000). Hudson, Lane & Pullen (2005) mimic this definition but labeled speed as rate. Rasinsky (2012) built on the description when he included prosody alongside automaticity in his interpretation. Rasinski purposefully excluded speed or rate, which measures
words read correctly in one minute (WRCM). He cautioned that reading for speed would conflict with meaning-making. Additionally, he suggested that speed does not support expression (prosody). Likewise, Kuhn, Schwanenflugel & Meisinger (2010) claimed that asking children to read quickly would lower reading prosody. Automaticity, which Rasinsky called “the ease of reading words,” is an ability to recognize words automatically. While automaticity differs slightly from accuracy, which is correctly identifying a word, the two are often linked. An ability to quickly and accurately recognize words and the ability to read words easily go hand in hand. Prosody is considered a necessary component of reading fluency by some (Ardoin, Morena, Binder & Foster, 2013, Hudson, Lane & Pullen 2005, Kuhn, Schwanenflugel & Meisinger 2010, Schwanenflugel & Benjamin 2017). Prosody is reading with expression, which includes phrasing, pausing, and intonation to convey meaning. Ardoin, Morena, Binder & Foster (2013) claimed that prosody is often absent in definitions of reading fluency in favor of rate and accuracy. Kuhn, Schwanenflugel & Meisinger (2010) proposed that a definition of fluency be based on the relationship between automaticity, accuracy, and prosody. Prosody stands out in many studies as the component to link the reading of a text to the understanding of it (Ardoin, Morena, Binder & Foster, 2013, Kuhn, Schwanenflugel & Meisinger 2010, Rasinsky, 2012, Schwanenflugel & Benjamin 2017). Additionally, many see active links between reading fluency and comprehension in general. (Hudson, Lane & Pullen 2005, Kuhn, Schwanenflugel & Meisinger 2010, Schwanenflugel & Benjamin 2017, Suchy, 2009).

**Why is Reading Fluency Important?**

noted a correlative relationship between reading fluency and comprehension. Suchey, (2009) and Smith et al., (2014) have recognized the relationship between fluency and comprehension through a complicated, reciprocal process. A lack of fluency results in a laborious process of decoding, which hampers comprehension. With an intense focus on decoding, the brain is too busy to handle the more advanced thinking required for understanding (Hudson, Lane & Pullen, 2005). Furthermore, incorrectly reading words will lead to a misinterpretation of a text (Hudson, Lane & Pullen, 2005). The ability to create phrasing and recognize words automatically when reading supports the enjoyment and comprehension of a book (Kuhn, Schwanenflugel & Meisinger, 2010, Schwanenflugel & Benjamin, 2017). Text comprehension is one of the most reliable measures of academic success at every level and is the context through which individuals navigate through life beyond school (Stenner, 1996). The ability to read legal documents, road signs, and news articles helps contribute to a literate and responsive society. Phrasing, appropriate pausing, and a vocal uprising for a question mark or exclamation mark are some recognizable traits of good reading prosody. Ardoin, Morena., Binder & Foster (2013) showed that students with the best decoding skills paused less within a sentence and made a more exaggerated final pitch declination. Such good prosody skills may partially mediate the gap between word decoding and comprehension (Schwanenflugel, Hamilton, Kuhn, Wisenbaker & Stahl, 2004 cited in Ardoin, Morena, Binder & Foster, 2013).

Is There a Gap in How Language is Taught in Traditional Montessori Classrooms?

Elliot (1967) and Mitchell (1965), looked at Maria Montessori's approach to reading instruction. While these studies are dated, they present materials and procedures that have been and are still faithful to the method since its inception.
Elliot (1967) made a note of Montessori’s approach to reading instruction, which advocates for teaching the mechanics of writing before reading to preschool-aged children. Montessori's theory suggests that by presenting writing first, children develop a muscular memory of a letter, which later helps in recognition and memory of its sound (Elliot, 1967). Similarly, Mitchell (1965) found consistent use of sensory materials and practical life exercises to support mechanics of writing throughout the schools she observed in the United States. Fernald (1943, cited in Elliot 1967) also recognized a positive correlation between writing and reading instruction. He found that the kinesthetic force involved in mechanical writing helped in the process of reading acquisition. Caudle (1965, cited in Elliot, 1967) and Downing (1962, cited in Elliot, 1967) found that typewriting, an alternate kinesthetic writing approach, also supported reading instruction.

Montessori advocated for reading instruction to follow writing instruction at the preschool level. A more traditional method pinpointed six and a half as an ideal age to present reading instruction (Morphett and Washburne, 1931 cited in Elliot 1967). In contrast, Hillerich (cited in Elliot, 1967) found benefits of pre-reading instruction presented to five-year-olds. Skibbe, Connor, Morrison & Jewkes (2011) found that the first and second years of preschool contribute similarly to decoding and letter knowledge gains and that these effects accumulate. Additionally, they found that exposure to oral language and natural development (of language skills) influence positive outcomes. Early exposure to literacy instruction (reading and writing), as advocated by Montessori, appears beneficial.

Reading instruction in the Montessori classroom puts a great deal of focus on phonics. The children begin by learning the letter sounds and then blend the sounds together to make words. Independent activities involving the Moveable Alphabet encourage students to compose
words while providing purposeful movement. Students move from building basic CVC (consonant-vowel-consonant) words to blends and digraphs. Finally, long vowel patterns are introduced.

Elliot (1967) pointed to a significant shortfall in Montessori's approach to reading instruction by teaching a purely phonetic approach. He suggested that teaching reading through phonics may have served the Italian language but is inadequate for English. The English language has too many exceptions to rules and too many variations for vowel sounds and combinations to be looked at merely through the lens of sound. Price-Mohr & Price (2017) found that presenting a stand-alone phonics approach to four and five-year-old children was deficient in meeting the needs of all the children. Mitchell (1965) also noted an exclusive use of phonetics in reading instruction among the Montessori schools she observed, while reserving any specific criticism of this approach.

Mitchell (1965) found that the approaches and materials between the Montessori schools she studied were almost identical. A remarkable fact due to the distance between the schools. The method, Mitchell determined, produced readers long before their public-school peers. The majority of these Montessori children would enter first grade with the ability to read first-grade texts and with knowledge of letter sound and symbol. She failed to mention anything about their ability to comprehend what they read. Elliot (1967) suggested that Montessori did not emphasize what is read (comprehension). Montessori herself recognized the difference between merely sounding out words and reading fluently. In her own words she noted the gap: "Between knowing how to read the words, and how to read the sense of a book, there lies the same distance that exists between knowing how to pronounce a word and how to make a speech" (Montessori 1908/1988, p. 3).
Two action research studies identified deficits in the area of comprehension among Montessori students. Bullerman & Gondinez (2016) used the Read Naturally program in lower and upper Montessori elementary classrooms to address the shortfall. The program, which worked on all aspects of fluency, produced positive results in the area of comprehension among the Montessori students. Cockerille (2014) noted strengths in the reading ability of Montessori students, even beyond their same-aged peers, but an inability to interpret texts beyond a fundamental level. Cockerille used the Reading Workshop program as an intervention approach. Reading Workshop targets high order comprehension skills. Through a process of talking and writing about reading, Cockerille found that reading became visible and tangible, which positively supported comprehension.

**Best Practices for Reading Instruction**

The Cognitive Apprenticeship theory, authored in 1987 by Collins, Brown, and Newman supports best practices for reading instruction as it proposes that individuals learn from others through devices such as observation, imitation, and modeling. Modeling refers to the aspect of learning where an expert explicitly demonstrates a task that a novice would then follow. Feedback or guided instruction along the way is then offered related to the specific efforts of the novice. In addition to feedback, the expert would offer to scaffold the task, supporting the novice through the task in any way they may need. Modeling, feedback, and scaffolding a task are all ideally found within the structure of quality oral reading instruction.

Oral reading instruction, which dominated reading instruction in the United States up to the first decade of the twentieth century, gave way to silent reading by the end of the nineteenth and the beginning of the twentieth centuries. The shift toward silent reading as the favored instructional method coincided with the widespread availability of print material, including
books, magazines, and newspapers (Rasinski, 2010). Silent reading was considered a preparation for reading beyond school and involved thought, which develops interest (State of Ohio, 1923 in Rasinski, 2010). Round Robin Reading has been and still is a popular method for teaching reading in the United States. This method involves a teacher calling on individual children from within a small group to read a passage aloud while the others follow along. Rasinski (2010) notes that reading scholars have not favored this method of reading instruction, which can put students on the spot leading to feelings of embarrassment when a performance is poor or create a whack-a-mole situation for a teacher to manage. Rather than defaulting to a silent reading program, Rasinski (2010) advocates for a high-quality oral reading instruction program.

Hallmarks of a high-quality oral reading program include modeling through teacher lead read-alouds of high quality books. Children respond favorably to the magic of a well-read story or text to transport them into the lives and world of the characters or a non-fiction setting unlike their own. Reading plays and poetry allow for readers to display their talents in a safe format, due to the opportunities to practice in advance (Ivey and Broaddus, 2001 as cited in Rasinski, 2010). They offer opportunities for students to shine and feel special, which will make reading look magical in turn.

To default to silent reading as the only form of classroom reading instruction is to deny students countless opportunities to practice developing and using their voices in ways that will prepare them for a multitude of activities related to oral reading. These budding citizens of the future will be prepared to read stories to their own children, recite poetry, give speeches, sing in a choir, tell jokes, and offer toasts (Rasinski, 2010). Rasinski elaborates that oral reading builds confidence, creates community, connects spoken to written language, strengthens decoding skills, and ultimately fosters fluency. Fluency, Rasinski claims, is the missing link between
reading words and comprehension. He states that “fluency takes phonics or word recognition to
the next level” (pg. 32).

Three methods have been identified through this literature review as being useful tools to
support reading fluency: repeated reading, modeling, and corrective feedback. Repeated reading
of a text at the appropriate instructional level provides the means for a reader to improve
accuracy, automaticity, and prosody. Accuracy improves through the reader correcting initial
mistakes. Automaticity develops as the reader comes to recognize words that have already been
read. Prosody advances as it would with an actor rehearsing a script, through practice and
enhancement. Repeated reading has shown to promote overall reading ability (Ardoin, Morena,
Binder & Foster, 2013, Bullerman & Godinez 2016, Dowhower, 1987 cited in Ardoin et al.,
specifically, research by Ardoin et al. (2013) and Dowhower (1987, cited in Ardoin et al. 2013)
revealed specific gains in prosody through repeated reading. The study done by Ardoin et al.
(2013) saw improvement specifically in targeted areas; speed or prosody. Another notable
distinction was in the Hawkins et al. (2015) study of the two approaches offered as interventions
for students; repeated reading and listening while reading. The investigation revealed that
listening while reading produced better results than just repeated reading alone. Listening while
reading offered modeling of rate and prosody in addition to repeated reading. Rasinski (2010)
also advocates for a method of listening to a text read while reading. The dual power of receiving
feedback and repeated reading can offer greater gains. Dowhower (1987 cited in Ardoin et al.,
2013) found that a control group went on to read with less in-phrase pausing and tended to
include more significant final pitch intonation following a reading model. These reading
characteristics are typical of good reading prosody. Peers should be considered when utilizing a
modeling approach. Hawkins et al. (2015) conducted action research using the Six-Minute Solution, which included peer reading. The partner readers modeled for each other and made gains together. Griffin (2002) leveraged peer modeling, which was captured on film. Children could be seen correcting each other's words, using their index fingers to help track words, to indicate when to turn the page, and to prompt turn taking. In a study involving toddlers and their parents in shared reading, Curenton & Kennedy (2013) discovered the most significant gains in reading happened when toddlers "read" to their parents after researchers modeled reading to the children.

Modeling can extend beyond merely reading a text ahead of a reader. Modeling may appear in the form of sharing good reading habits and approaches. Lucy Caulkins (2001), a respected literacy contributor, suggests the modeling of reading behavior, not just skill. She advocates for lifelong reading habits, a joy of reading, and connecting with others through reading. This extends the idea of modeling beyond merely reading out loud so children can hear how it should sound. Cockerille (2014) suggested that teachers talk about their reading, how to make sense of a text, and what tools help them gather meaning from it. This modeling involves more in-depth thinking about a passage including themes, questions, and inferences.

Corrective feedback allows the teacher to provide immediate feedback to a student when reading. Feedback can include offering a word if a child hesitates or says a word incorrectly (Caulkins, 2001, Hawkins et al., 2015) or be specific to a reading skill such as rate or prosody (Ardoin et al., 2013). Telling readers that they are reading quickly can positively influence that skill (Curenton & Kennedy, 2013, Griffin, 2002). Additionally, skills will develop specific to the feedback given. If a reader is provided feedback on reading rate, reading rate will likely improve. Alternately, if a reader is provided feedback on prosody, the student will probably develop skills
specific to prosody (Ardoin et al., 2013). Corrective feedback, regardless of abilities targeted, can positively affect reading outcomes in struggling readers (Bullerman & Gondinex, 2016). This study will seek to measure and improve reading fluency through automaticity, accuracy, and prosody. Automaticity signals decoding that is less effortful, while accuracy ensures that the correct word is identified, providing proper meaning. Prosody, which involves rhythm, tone, and inflection, indicates that the reader understands the text. Through teacher modeling, students will hear a text read accurately and with correct prosody. They can build on that modeling as they practice reading the same text several times, gaining greater accuracy through subsequent reads and adding more elements of prosody each time. Student readers will be offered feedback on their reading specific to fluency and prosody.

**Methodology**

Quality oral reading, according to Rasinski (2010) is the pathway to fluency and ultimately comprehension. The ability to read with ease and understand literature read is foundational to the progressive nature of education on the path to graduation. This action research study utilized an experimental design, collecting quantitative data through student-generated artifacts. Additionally, classroom observations supported triangulation. Words read correctly were tracked numerically, while scoring rubrics were used to measure reading fluency and comprehension skills. Self-evaluations were measured using Likert-type scales to determine perceptions and knowledge about fluency as well as attitudes towards reading. The same tools were used to collect data before and after the intervention.

The population for this action research study was comprised of two public Montessori classrooms with grades ranging from K-3. The sample group from School A includes eleven students ranging in age from 5-7 years old. They are a composition of seven females and four
males. Participating students include one kindergarten student, six-grade one students, and four-second graders. The sample group from School B consists of 20 students with ages ranging from 6-9 years old. The population is represented by 12 females and eight males.

School A is located in British Columbia. It runs a dual track system with eight divisions operating as Montessori classrooms and 12 as neighborhood classrooms. The Montessori stream is a choice program in the district where admission of students happens through a lottery system. The school population contains a mix of socio-economic levels. An average of 20 students participate in a free breakfast program every day. Additionally, there is a high percentage of high-risk children and children in poverty. The Indigenous population accounts for 30% of the students. Another 3-4% come from other visual minorities, including Asian and Black. Of the more than 400 students, 1% are second language learners (see Figure 1). The students included in this action research are from a mixed K/1/2 classroom with ages ranging from 5-8.

Figure 1. School A: Demographics.

School B is an urban public Montessori school, located in the third largest school district in Illinois. It is a magnet school in the district where students are admitted through a lottery system as four-year-olds or enter through a waitlist in subsequent grades. School B serves a
diverse population. Enrolled students are 47% white, 28% black, 14% Hispanic, 4% Asian, and 6% are two or more races. Low-income households account for 36% of the student population. English language learners make up six percent of the total student population (see Figure 2). The students included in this action research are from an Elementary 1 classroom, which consists of students in grades one to three and ages 6-9.

![Demographics School B](image)

**Figure 2.** School B: Demographics.

The purpose of this action research study was to discover what the use of a systematic approach, including teacher modeling, repeated reading, and corrective feedback had on the reading fluency of students ages 6-9 in public Montessori classrooms.

To measure automaticity in reading, students were given a grade level reading passage. The same passages were used both pre- and post-intervention. Data consisted of words read correctly over three repeated readings. Also, two scoring rubrics and two Likert-type scales provided pre- and post-assessments to gather further data on fluency, comprehension skills, and student self-evaluations regarding perception and feelings about reading. The fluency rubric, created by Timothy Rasinski, rated student fluency through expression, phrasing, and pace using a 1-4 scale. The criteria for level one included emerging reading skills while level four
represented extending reading skills. The comprehension rubric used question prompts to
determine understanding of the fictional texts. A 1-4 scale using criteria specific to the text noted
developing or emerging skills at level 1 and extending abilities at level 4. The comprehension
rubric noted story elements, thinking about characters and the story, and strategies used to make
meaning of the text. A Likert-type scale captured student self-evaluations on accuracy, prosody,
and comprehension following the reading. The scale utilized three human facial expressions
from smiling face to a grumpy face with a thumb down to capture student reflections. A three-
point Likert-type scale was also used to determine perceptions or knowledge about fluency and
attitudes about reading. The scale included the same three human facial expressions as the
fluency self-evaluation with a smiling face representing “I agree” and the grumpy face with a
thumb down standing for “I do not agree.”

Based on information gained from the literature review, the researchers implemented a
daily reading block into their Montessori classroom settings. Students met in small groups with
the teacher. The instruction focused on three key practices: teacher modeling, repeated reading,
and corrective feedback. Teachers also modeled reading of on-line passages projected on a large
screen for the entire class. When modeling reading, teachers focused on fluency and good
expression, offering explicit instruction and strategies for word decoding, phrasing, and rules for
punctuation such as an upward rising voice for a question mark or exclamation mark. During
small group instruction time, the students would read the same modeled passage several times.
Between reads, the teacher would offer specific corrective feedback related to accuracy,
phrasing, and expression such as “now that you’ve read each word correctly try reading the
words together in a phrase like you are talking to a friend.”

Analysis of Data
Accuracy Analysis

The study began with students reading a grade level passage three times to measure their current level of fluency. The number of words read correctly was recorded after the third read. First-grade students were asked to read a passage titled *Kim’s Flowers* (See Appendix A) for both the pre and post-test. The passage included a total of 68 words. The average number of words read correctly for first graders in the pre-test was 38, for the post-test 59 (see Figure 3). The students’ average increased by 31%.

![Figure 3. Words Read Correctly by Grade 1 Students.](image)

Second-grade students were asked to read a passage titled *The Clumsy Bees* (see Appendix B) for both the pre and post-test. The passage included a total of 102 words. The average number of words read correctly for second graders in the pre-test was 94, for the post-test 99 (see Figure 4). The students average increased by 8%.
Third-grade students were asked to read a passage titled *The Switch* (see Appendix C) for both pre and post-assessment purposes. The passage included a total of 166 words. The average number of words read correctly for third graders in the pre-test was 151, for the post-test 160 (see Figure 5). The students average increased by 5%.

**Fluency Analysis**

Fluency skills were measured by the researchers using Timothy Rasinski’s fluency rubric (see Appendix D). Students were rated from 4 (highest) to 1 (lowest) on four fluency measures.
The measures included: expression and volume, phrasing, smoothness, and pace. The average score in the pre-test was 7 as compared to 12 on the post-test (see Figure 6). Students showed an average of 30% increase in fluency after the intervention.

*Figure 6. Rate of Student Fluency.*

**Comprehension Analysis**

After completion of the reading passage, the students were assessed using a comprehension rubric (see Appendix E). The rubric provided qualitative data about the students’ understanding of the text. Question prompts were given to the students to assess four comprehension categories. The categories included: understanding, story elements, thinking about the story, and thinking about the characters.
The first category was *Tries to Understand*. Students were rated on how well they used reading strategies to decode the materials. Criteria included: did the student stop and re-read, did they ask for assistance, or did they just keep reading without trying to understand the story at all? The second category was *Story Elements*. Students were asked to recall important details about the characters and setting of the story. The third category was *Thinks About the Story*. In this element, students were tasked with recalling important details about the story including the problem and solution. The last category was *Thinks About Characters*. The students were asked to think about how the characters in the story thought and acted and provide examples from the story to support their answers. On the pre-assessment, the average student score for comprehension was 44%, The average comprehension score on the post-assessment was 75% (see Figure 7).

![Reading Comprehension Rubric](image)

*Figure 7. Comprehension Rubric Results.*

**Attitude Analysis**
While part of the research question addressed the impact on reading fluency, a secondary question looked at the impact on student perception, knowledge, and attitudes about reading fluency (see Appendix F). A Likert-type scale was used both pre and post-intervention to measure any change following the intervention (see Figure 8). All students agreed or agreed a little that reading was important in both pre and post-assessment. The majority of students reported agreeing or agreeing a little to whether they like reading. Of the four students in the pre-assessment who did not agree, only 2 still did not agree after the intervention. At the conclusion of the intervention, 94% of the students agreed or agreed a little to liking reading, as opposed to 87% at the beginning of the study. On the fluency related statement, “reading is like talking to a friend,” only 48% agreed or agreed a little in the pre-assessment, as compared to 100% agreeing or agreeing a little after the intervention. 70% of students disagreed that reading fast was important before the intervention as compared to 90% after. 74% of students agreed that understanding what is read is most important in the pre-assessment while the post-assessment showed 97% of the students in agreement.

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<td>Agree a little</td>
<td>Agree a little</td>
<td>Disagree</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>28</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I like reading</td>
<td>18</td>
<td>17</td>
<td>9</td>
<td>12</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
I am good at reading

Reading is like talking to your friend

Reading fast is important

Understanding is most important

<table>
<thead>
<tr>
<th></th>
<th>Pre-study</th>
<th>Post-study</th>
<th>Pre-study</th>
<th>Post-study</th>
<th>Pre-study</th>
<th>Post-study</th>
</tr>
</thead>
</table>

---

Figure 8. Attitudes about Reading.

A Likert-type scale was used as a self-evaluation tool (see Appendix G) to gauge student awareness of their own reading skills related to fluency. Changes were seen in students’ attitudes of their accuracy, prosody, and comprehension (see Figure 9). 55% of students agreed and 35% agreed a little that they read the words accurately during the pre-assessment as compared to 64% and 32% in the post-assessment. 52% of students agreed that they read with good pausing and pacing (prosody), while 26% agreed a little in the pre-assessment. 71% agreed and 19% agreed a little after the intervention. 71% agreed and 16% agreed a little that they understood what they read (comprehension) before the intervention. At the end of the intervention, 77% agreed and 23% agreed a little that they understood the text.
Reading Fluency; Teacher Modeling, Repeated Reading, and Corrective Feedback

Comparison Analysis

Scores on the Rasinski Fluency Rubric and the Comprehension Rubric increased at almost identical rates. These findings support the link between good reading fluency and increased reading comprehension (Hudson, Lane & Pullen 2005, Kuhn, Schwanenflugel & Meisinger 2010, Schwanenflugel & Benjamin 2017, Suchy, 2009).

The attitude analysis revealed small gains in attitudes toward reading (I like reading, I’m good at it). Before the study, the majority of student reported positive associations with reading. The same holds for the post-assessment.

Significant gains were made in the understanding of fluency, evident in the Perceptions & Feelings about Reading scale. In the post-assessment, a full 100% of the students agreed that understanding what is read is most important. 90% disagreed that reading fast was important, and 100% agreed or agreed a little that reading should sound like talking to a friend. These findings are significant because they show that students are making the connection between reading and gathering information. Furthermore, they are recognizing that reading fluency (not speed) is

When analyzing the data from the Fluency Self-Evaluations, the researchers found that student scores did not align with teacher scores. Many of the students with lower scores on the Rasinski scale over evaluated their reading abilities, while more fluent readers were harsh critics of themselves.

**Discussion**

Through teacher observations and reading assessments, the researchers identified that many students in both of the classrooms studied were not reading fluently at grade level. A lack of fluency was evident through observation and assessment, which revealed reading that included sounding out words statically rather than dynamically. Many of the children were replacing words with incorrect ones because they resembled the words being decoded. Furthermore, a lack of fluency affected the ability of students to comprehend what was being read. When a passage was read word by word it was difficult for students to make meaning through the intended phrasing. Based on these observations, the researchers investigated a course of action to support reading fluency. Informed by a review of the literature, the researchers asked the question what effect does using a systematic approach have on increasing reading fluency in a 6-9-year-old public Montessori classroom? Additionally, the researchers inquired if implementing a reading intervention would change student attitudes and understanding about reading? The intervention included time dedicated to reading instruction, intervention, and practice.
Based on the findings of this study, the researchers concluded that by implementing a systematic approach to fluency, consistent gains in reading fluency, including prosody, were made by all readers. It appears evident that allotting time for reading instruction and practice can positively support fluency. Additionally, a positive correlation emerged between an increase in reading fluency and positive attitudes and perceptions about reading. The largest gains were made by the lowest readers: 1st graders and students who were below reading level. The two forms of data occasionally overlapped. This supports the importance of fluency instruction for beginning and struggling readers (Hudson, Lane & Pullen, 2005). The researchers are bolstered by the data and committed to continuing to schedule daily reading blocks among the choice-driven Montessori schedule.

Researchers noted that students demonstrated a developing understanding of nuance in language and how to use their voice for emphasis by replicating the phrasing and prosody modeled by the teacher. This supports the need for lessons in prosody within fluency instruction (Ardoin, Morena, Binder & Foster, 2013, Hudson, Lane & Pullen 2005, Kuhn, Schwanenflugel & Meisinger 2010, Schwanenflugel & Benjamin 2017).

Teacher modeling will continue to be included, as it not only provides explicit teaching of prosody and accuracy, but can also provide opportunities for role models to share in the love of reading and the many take-aways possible from reading a text. Evident gains in student understanding about fluency speak to the importance of modeling. The students learned much about fluency at the same time they developed skills to support it. Furthermore, including teacher modeling within the framework of the reading block is essential.

The research suggested that repetition leads to greater accuracy and fluency. Allowing a student to approach a text by simply decoding words and then begin to string words together into
meaningful chunks builds confidence and knowledge of the text. As students continue to re-read a text, phrasing can emerge along with vocal techniques to add interest and expression. Just as actors rehearse lines to reach a point where it sounds like they are speaking their own words, so to can a reader sound “like she is talking to a friend.”

Providing feedback to students based on areas they need to focus on, such as prosody or accuracy, enhances those aspects of reading. Through observation and assessment, the researchers will identify opportunities in fluency building and target instruction and feedback accordingly. Feedback can be temporarily limited to a certain aspect of fluency in support of its development. If the desire is to have the students read with punctuation in mind to support phrasing, punctuation can be the immediate source of the feedback during reading practice.
References


Child Development and Behavior Branch. Retrieved from TEACHING CHILDREN TO READ: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction


Appendix A

**Reading A-Z**

Fluency Passage—Fiction

**Kim’s Flowers**

Name _____________________________  Word Count: 68

Kim went to pick flowers for Mom.

She walked into the field where the flowers grew.

She picked blue and red flowers.

She picked orange flowers, too.

She gave the flowers to Mom.

Mom smiled.

“Thank you so much,” Mom said.

She put the flowers in some water and set them on the table.

People asked, “Where did you get the pretty flowers?”

“Kim picked them,” Mom said.

---

<table>
<thead>
<tr>
<th>Goal Rate</th>
<th>Read 1</th>
<th>Read 2</th>
<th>Read 3</th>
<th>Read 4</th>
<th>Read 5</th>
<th>Read 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERRORS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WCPM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy/Reading Rate %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

Reading A-Z

Fluency Passage—Fiction

The Clumsy Bees

Name

The Clumsy Bees

Long ago, the bumblebees built the very first hive. But the bees were quite clumsy. They bumped into each other in the dark tunnels and crashed into the hive. One of them even stung the queen by mistake.

"From now on, every bee must wear bright yellow," said the queen, rubbing her side. "That way, we can see each other."

"But if we're all yellow, we'll get lost inside yellow dandelions," said a bumblebee.

"I suppose that's true. But if we add black stripes, we'll show up everywhere," said the queen.

From then on, all bumblebees have been yellow with black stripes.

<table>
<thead>
<tr>
<th>Read 1</th>
<th>Read 2</th>
<th>Read 3</th>
<th>Read 4</th>
<th>Read 5</th>
<th>Read 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPM</td>
<td>Errors</td>
<td>WCPM</td>
<td>Accuracy/Reading Rate %</td>
<td>Errors</td>
<td>WCPM</td>
</tr>
</tbody>
</table>

Reading A-Z is a registered trademark of Scholastic Inc.
Appendix C

Reading A-Z

Fluency Passage - Fiction

Name

The Switch

The princess looked out over the land from her tower, smelling the lovely fields of clover and feeling the pleasant sunshine.

“If only I could leave this dark, damp tower and work on a farm,” she said. “My muscles are soft, and I need some sun.”

The farmer looked across his fields at the castle and imagined the luxurious rooms and delightful feasts they had inside. He pictured himself sitting with his sore feet on a cushion, with servants bringing him sweet butter.

“If only I could quit working and live in the tower,” he said. “I’m tired, and I’d like some shade.”

So the farmer and the princess switched places. Usually in these stories, the princess doesn’t like the hard work, and she wants to go back to the tower. And the farmer decides he misses the field and is bored sitting in the castle all day. But let’s say they liked the switch and lived happily ever after, since it sounds better that way.

<table>
<thead>
<tr>
<th>Reading Rate</th>
<th>Read 1</th>
<th>Read 2</th>
<th>Read 3</th>
<th>Read 4</th>
<th>Read 5</th>
<th>Read 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPM</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Errors</td>
<td></td>
<td></td>
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<td>WCPM</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Accuracy / Reading Rate %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# FLUENCY RUBRIC

<table>
<thead>
<tr>
<th>Expression and Volume</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reads in a quiet voice as if to get warmed up. The reading does not sound natural or like talking to a friend.</td>
<td>Reads in a quiet voice. The reading sounds natural to part of the text, but the reader does not always sound like they are talking to a friend.</td>
<td>Reads with volume and expression. However, sometimes the reader slips into expressionless reading, and does not sound like they are talking to a friend.</td>
<td>Reads with varied volume and expression. The reader sounds like they are talking to a friend, with their voice matching the inflection of the passage.</td>
<td></td>
</tr>
<tr>
<td>Phrasing</td>
<td>Reads word-by-word in a monotone voice.</td>
<td>Reads in two or three main phrases, not adhering to punctuation, stress, and intonation.</td>
<td>Reads with a mixture of non-fluent and sentence pauses for breath, and some choppy phrases. There is reasonable stress and intonation.</td>
<td>Reads with good phrasing; adhering to punctuation, stress, and intonation.</td>
</tr>
<tr>
<td>Smoothness</td>
<td>Frequently hesitates, reads out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage.</td>
<td>Reads with occasional pauses or hesitation. The reader has many &quot;rough spots.&quot;</td>
<td>Reads with occasional breaks in rhythm. The reader has difficulty with specific words and sentence structure.</td>
<td>Reads smoothly, with few breaks, but self-corrects with different words and/or sentence structure.</td>
</tr>
<tr>
<td>Pace</td>
<td>Reads slowly and laboriously.</td>
<td>Reads moderately slowly.</td>
<td>Reads fast and scores throughout reading.</td>
<td>Reads at a conversational pace throughout the reading.</td>
</tr>
</tbody>
</table>

Scores of 9 or more indicate that the student is making good progress in fluency. Score __________

Scores below 9 indicate that the student needs additional instruction in fluency.
# Appendix E

## Independent Reading Comprehension

**Student Name:**

**Date:**

### Question Prompts:

1. What is the title of the story? What is the story about? Who is in the story? Where and when does the story take place? What happened in the story? If the author kept writing, what do you think would happen next? How do you think the characters felt at the beginning of the story? At the end?

<table>
<thead>
<tr>
<th>Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title/Character</strong></td>
<td>Student knows the title of the story as well as the names and descriptions of the important characters. Can explain what happened and where the story takes place.</td>
<td>Student knows the main idea of the story. Can provide some information about the characters and events.</td>
<td>Student is unable to provide any information about the story.</td>
</tr>
<tr>
<td><strong>Think about the story</strong></td>
<td>Student describes what has happened in the story and can predict what will happen next.</td>
<td>Student can accurately describe most of what happened in the story.</td>
<td>Student has difficulty retelling the story.</td>
</tr>
<tr>
<td><strong>Think about the characters</strong></td>
<td>Student describes how different characters might have felt at different points in the story.</td>
<td>Student describes how different characters might have felt at different points in the story.</td>
<td>Student has difficulty discussing the characters.</td>
</tr>
</tbody>
</table>

---
### Reading Self Evaluation

<table>
<thead>
<tr>
<th></th>
<th>I agree</th>
<th>I agree a little</th>
<th>I do not agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading is important</td>
<td>😊</td>
<td>😐</td>
<td>😞</td>
</tr>
<tr>
<td>I like reading</td>
<td>😊</td>
<td>😐</td>
<td>😞</td>
</tr>
<tr>
<td>I am good at reading</td>
<td>😊</td>
<td>😐</td>
<td>😞</td>
</tr>
<tr>
<td>Reading should sound like I’m talking to my friend</td>
<td>😊</td>
<td>😐</td>
<td>😞</td>
</tr>
<tr>
<td>Reading fast is important</td>
<td>😊</td>
<td>😐</td>
<td>😞</td>
</tr>
<tr>
<td>Understanding what I read is the most important thing</td>
<td>😊</td>
<td>😐</td>
<td>😞</td>
</tr>
</tbody>
</table>
Appendix G

Name ____________________________  Date ______________

Student Self Evaluation Rubric

Title ____________________________

<table>
<thead>
<tr>
<th>Fluency</th>
<th>1st Read</th>
<th>2nd Read</th>
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<tbody>
<tr>
<td>Accuracy:</td>
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<td>😊😊😊😊😊</td>
<td>😊😊😊😊😊</td>
</tr>
<tr>
<td>I read the words correctly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prosody</td>
<td>😊😊😊😊😊</td>
<td>😊😊😊😊😊</td>
<td>😊😊😊😊😊</td>
</tr>
<tr>
<td>When I was reading, it sounded like I was talking to a friend</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehension</td>
<td>😊😊😊😊😊</td>
<td>😊😊😊😊😊</td>
<td>😊😊😊😊😊</td>
</tr>
<tr>
<td>I understood what I read</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A Systematic Approach to Increase Reading Fluency

Parental Permission Form

August 30, 2018

Dear Parents,

In addition to being your child’s teacher, I am a St. Catherine University student pursuing a Masters of Education. As a capstone to my program, I will be participating in an Action Research project. I am going to study reading fluency in the elementary Montessori classroom. The purpose of this research is to provide a systematic approach to reading instruction, informed by current best practices, with the intention of improving student outcomes in reading fluency.

In the coming weeks, I will be including a dedicated reading block, during which students have an opportunity to practice reading skills alongside receiving guidance and feedback in order to improve their skills. All students will participate as members of the class. In order to understand the outcomes, I plan to analyze the data obtained from the results of repeated reading, reading with expression, and comprehension of a passage read. I will record words read correctly in a passage that students read three times over the course of a week. I will evaluate general fluency, including expression, through both teacher and student perspectives using a rubric scale. Comprehension of a reading passage will be measured through questions to determine overall understanding of what is read. All strategies implemented and assessments given are part of normal educational practice.

The purpose of this letter is to notify you of this research and to allow you the opportunity to exclude your child’s reading outcomes from my study.

If you decide you want your child’s data to be in my study, you don’t need to do anything at this point.

If you decide you do NOT want your child’s data included in my study, please note that on this form below and return it by September 10, 2018. Note that your child will still participate in reading fluency lessons but his/her data will not be included in my analysis.
In order to help you make an informed decision, please note the following:

- I am working with a faculty member at St. Kate’s and a project coach to complete this particular project.
- The benefits of this study are possible gains in reading fluency and improvement in student attitude toward learning. There are no foreseeable risks associated with this study. Student data related to the study will be confidential, even between students.
- I will be writing about the results that I get from this research. However, none of the writing that I do will include the name of this school, the names of any students, or any references that would make it possible to identify outcomes connected to a particular student. Other people will not know if your child is in my study.
- The final report of my study will be electronically available online at the St. Catherine University library. The goal of sharing my research study is to help other teachers who are also trying to improve their teaching.
- There is no penalty for not having your child’s data involved in the study, I will simply delete his or her responses from my data set.

If you have any questions, please feel free to contact me at catherine.munro@sd71.bc.ca. You may ask questions now, or if you have any questions later, you can ask me, or my project coach Amanda Perna amperna@stkate.edu, who will be happy to answer them. If you have questions or concerns regarding the study and would like to talk to someone other than the researcher(s), you may also contact Dr. John Schmitt, Chair of the St. Catherine University Institutional Review Board, at (651) 690-7739.

You may keep a copy of this form for your records.

______________________________   ________________
Name (print)      Date

______________________________
Name (signature)

OPT-OUT: Parents, in order to exclude your child’s data from the study, please sign and return by September 10, 2018.

I do NOT want my child’s data to be included in this study.
______________________________   ________________
Signature of Parent     Date

Thank You,

Catherine Munro
Appendix I

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______________________________   ________________  
Name (print)      Date

______________________________  
Name (signature)

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I do NOT want my child’s data to be included in this study.
Signature of Parent  Date

Thank You,

Julie Foltmer