

# Choral Reading Theater: Bridging Accuracy, Automaticity and Prosody in Reading Fluency across an Academic Unit of Study

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*Abstract: The purpose of this Choral Reading Theater (CRT) third-grade classroom project was to investigate the gradual release of choral reading as a bridge for automaticity to prosody in fluency to comprehend informational text. A concurrent mixed method analysis was conducted in a third grade class and found significant and effective increases in the students reading accuracy, automaticity, prosody, and comprehension.*

Recent reviews of research indicate that reading fluency is a necessary and critical element for successful reading. Pikulski and Chard (2005) have described fluency as a bridge from word recognition accuracy and text comprehension. The two components of fluency, automaticity and prosody, provided a link from accurate word recognition to constructing textual meaning.

It is not sufficient for readers to read the words in text accurately- they need to read the words automatically. In their theory of automaticity in information processing, LaBerge and Samuels (1974) need to automatize, or make effortless their word recognition so that they can use their finite cognitive resources for the more important task in reading comprehension. Readers who are not automatic in word recognition are marked as slow and laborious reading of texts.

Readers develop their word recognition automaticity in the same way that other automatic processes in life are developed – through wide and deep practice. Wide reading refers to the common classroom practice of reading a text once followed by discussion, response, and instruction aimed at developing some specific reading strategies and skills. The routine then begins anew with a different text. A general purpose of wide reading is to increase the volume of reading by having students read one new text after another. This is type of reading done my most adults and it is clearly a key component of any effective reading program.

Deep reading is more commonly referred to as repeated reading (Samuels, 1979). Deep reading occurs when a student is asked to read a single text repeatedly until a level of fluency is achieved. Think of those struggling students who have not yet achieved automaticity in their word recognition. They read the passage for the first time (and only time as in wide reading) and they don't read it very well – they know it and you know it. The slow halting reading that characterizes less than automatic word recognition will have a detrimental effect on the reader's comprehension. I think that rather than moving on to the next passage after some discussion and instruction, as is done in wide reading, the teacher needs to have the student read the passage more than once until some degree of automaticity is achieved with that passage.

When readers read a text more than once, it is not unusual that they would demonstrate improvement with every successive reading on that text practiced. That is to be expected –

repeated practice improves the performance of the actual activity practiced. The real value of deep or repeated reading is shown when students move on to a new and not previously read passage. What students learn from the repeated reading of one passage partially transfers to the new passage. Several reviews of research on fluency have shown that word recognition accuracy, automaticity, comprehension, and attitude toward reading have been shown to improve with repeated readings (Dowhower, 1994; Kuhn & Stahl, 2003; Rasinski, Reutzel, Chard, & Linan-Thompson, 2011). Wide and deep readings are foundational to any effective fluency program or intervention.

The problem with repeated readings becomes evident when readers intuit a purpose for the deep reading that focuses primarily on reading speed and away from meaning. Because fluency (automaticity) has come to be measured by a reader's speed of reading, for many students (and teachers) the goal of repeated readings has evolved into increasing one's reading speed (e.g., students are required to read passages from their reading book multiple times until they achieve a predetermined reading rate). When students engage in this form of repeated reading and their reading rates are measured weekly and then charted so that they can see their gains in speed, speed itself becomes the default goal of repeated readings and all of fluency instruction.

Prosody or expressive reading completes the bridge by linking fluency to comprehension. In order to read with appropriate expression a reader has to monitor the meaning of the passage read. Prosody, then, reflects and adds to the meaning of a text.

Scholars have argued that prosody in reading also assists the reader in identifying phrase boundaries that guide the reader in comprehending the text (Schreiber, 1980; 1987; 1991; Schreiber & Read, 1980). A growing body of research demonstrates that prosody in oral reading is related to overall proficiency in reading (Benjamin & Schwanenflugel, 2010; Miller & Schwanenflugel, 2006, 2008), including comprehension in oral and silent reading (Pinnell, et al., 1995; Daane, et al, 2005 ; Rasinski, Rikli, & Johnston, 1999).

Prosody is developed in the very same way that automaticity, the other component of reading fluency, is developed – through wide and deep reading practice. As readers read widely they encounter different texts that require different prosodic elements in order to read with appropriate expression and meaning. As readers read deeply (reading one text several times) they gradually recognize and embed into their reading the prosodic elements that allow for a meaningful and expressive rendition of the text. In the same way that actors rehearse a script in order to make a meaningful and authentic performance, readers read deeply in order to make a meaningful performance for themselves (or an audience if reading to others). Moreover, through repeated reading readers become more adept and efficient at employing prosodic features into new passages not previously read. Thus, improved prosodic reading is another positive outcome of repeated reading.

Prosody and automaticity should go hand in hand. Both are developed through wide and deep reading. However, when the goal of deep reading is to intentionally improve reading speed as is the case in many fluency programs, then prosody will almost always suffer. To read fast often

means sacrificing prosody (as well as meaning). Fast reading very often is devoid of meaningful expression.

When prosody is emphasized as the goal of the wide and repeated reading is to achieve an expressive oral reading of the passage that reflects and enhances the meaning of the passage. This to me is an authentic form of repeated readings. And when the goal of wide and repeated readings is to improve fluency in order to enhance comprehension, then fluency becomes hot again.

### ***Teaching Both Components of Fluency Authentically***

Samuels' (1979) classic research on repeated (deep) reading demonstrated the power of students' practicing a text several times until it can be read fluently. Repeated reading, however, is less well integrated into the regular reading and school curriculum. In many classrooms, as mentioned earlier, fluency is a separate add-on part of the reading curriculum where students read and reread short passages, usually informational in nature, for the purpose of increasing their reading rates.

### ***Performance and Voice***

A more authentic and engaging approach to repeated reading that focuses on prosody as well as automaticity is reading for performance. Of course, in the real world this is called rehearsal, not repeated reading. Actors, singers, poetry readers and other performers have a natural reason to rehearse or engage in repeated readings – the performance itself. They wish to convey meaning with their voice. Thus, in classrooms when reading can be cast in such a way that the text will eventually be performed readers will have an authentic reason to engage in repeated readings. Moreover, the repeated readings is not aimed at improving reading speed, but in being able to engage in an oral reading that an audience will find meaningful and satisfying. The performance provides the authentic reason for repeated readings. Certain texts lend themselves to expressive performance. These include poetry, songs, speeches and oratory, dialogues, monologues, and reader's theater scripts.

A classroom approach to repeated or rehearsed readings of such texts involves students rehearsing a text over the course of day or several days for the purpose of eventually performing the text for an audience of listeners. A limited amount of classroom-based research has shown that such an approach to deep reading has the potential for improving readers' word recognition and comprehension (Griffith & Rasinski, 2004; Martinez, Strecker, & Roser, 1999; Rasinski & Stevenson, 2005; Young & Rasinski, 2009; Vasinda & McLeod, 2011). Given the known limitations of classroom-based research (e.g. small numbers of students, lack of control of all variables, etc.) more research into the impact of Readers Theater and other performance texts is needed.

### *Assisted Reading*

Another approach to fluency instruction, known as assisted reading, involves readers reading a text while simultaneously hearing a more fluent oral rendering of the same text. Reviews of research into assisted reading have shown great promise for improving fluency and overall reading proficiency as a classroom instructional activity, an intervention method, or a parent/volunteer activity (Rasinski, 2010; Rasinski, et al., 2011). An approach to assisted reading found in many elementary classrooms is choral reading. Although, on the surface choral reading appears to manifest the chief characteristics of assisted reading, the body of research into the effects of choral reading are limited (Paige, 2011).

### *Another Classroom Reader's Theater Study*

The present study attempted to implement Choral Reader's Theater (CRT), a new approach to reader's theater that incorporated choral reading, in a third-grade classroom science project that actually began with a webinar developed. A unit of study on the growth and development of plants was developed by the first author. The unit included a reader's theater script that would be implemented as a CRT during the spring, 2013. Additionally, the unit of study included a strong focus on pre-reading/pre-learning activities, deep processing of vocabulary activities, text reading with an emphasis on comprehension, and writing based activities with students working in cooperative groups to research and design books focusing on "dangerous plants".

### **Choral Readers Theater (CRT) Classroom Project**

#### *Science Unit*

The science unit focused on plants their structure and functions, aligned with the district standards. Prior to beginning the unit, diagnostic assessments were given to the third graders to determine background knowledge related to the topic of plants. A quiz and twelve key vocabulary words were identified as essential for topic understanding. The vocabulary assessment was conducted as a pre/post test on demand, and the students were asked to define each word within the context of the topic on plants. Once background knowledge was determined, several pre-reading activities to build fluency were provided.

To help set the stage for learning the content, several pre-reading/pre-learning activities were put into place, (e g., simulation plant growth game, anticipation guide on key concepts, and several short videos). Word work consisted of procedures for morphemic analysis of multi-syllabic words by utilizing *Rocket Spelling* for decoding and encoding. Semantic analysis assisted in deep processing of key vocabulary words as the students would identify the vocabulary words, define them, draw pictures of the words, and use them in a sentence. Graphic organizer supported the student's comprehension of reading the science textbook, and researching a specific plant species and habitat to create a Universal Design for Learning (UDL) online book. Woven into this unit of study was the Choral Reader's Theatre (CRT) classroom project that assisted in bridging reading accuracy and automaticity to prosody so a deeper understanding of the unit of study could occur.

### ***The CRT Classroom Project Script***

The purpose of the CRT classroom project was to enhance fluency skills through a choral reader's theater performance while reading/ learning factual information from a science text. The script was designed using seven different choral roles related to the parts of plants and their functions (seed, leaves, stem, roots, flowers, plant as narrator, and chorus). The lines of the script were factual and yet humorous as the plant's role as the narrator was to set the stage for a verbal debate about which part of the plant was the most important for plant growth. This added to enhance the prosodic reading of the script. The chorus lines were sung to the tune of the *Farmer in the Dell* with cumulative recapping of the roles of the different parts of the plant. The students were also highly motivated to practice and perform the script knowing that their presentation would be an authentic presentation using video to be shown to parents and other classes.

### ***Grouping the Students for Choral Parts***

The students were grouped in small groups (3 to 4) by their instructional reading level and interest in the role they wanted perform. This supported differentiated instructional scaffolding for the students and at the same time it provided autonomy in their role. While the students provided input for their choice of roles, the narrator and chorus roles required that the readers were differentiated by reading stamina because of the multiple lines and the prosodic changes needed for the different content. Once the chorus groups were organized the project began.

### ***Gradual Release of the CRT***

This Choral Reader's Theatre project followed several steps, similar to the protocol utilized to build fluency for reader's theater. The teacher modeled fluent reading of the script and then gives different parts of the script at the instructional/independent reading levels to the students. Then the teacher gradually releases responsibility to the student to rehearse their parts through repeated reading. Finally, the student performed their role individually. The difference for this project is that choral reading groups performed the roles together during this reader's theater project and then reading responsibility was gradually released.

Similar to other fluency building protocol, the teacher read and modeled fluent reading of the script to the class. The teacher then worked with small collaborative groups of students at similar instructional levels and chorally reads aloud with the groups. Once the teacher felt she had assisted the groups sufficiently she released the group to rehearse the roles through repeated choral reading, until they were reading fluently. After 3 or 4 days of small group practice, the group's came together as a class. During the practice the small groups modeled fluent reading of their parts as the rest of the groups read along silently. The students also chose to design costumes to represent their respective role (as a seed, etc.) and corresponding movements (like the seeds growing upwards while reading their respective part). Finally, each small collaborative group performed their roles in unison as they interacted with other groups.

### *Teaching Sequence*

The study was completed over a 4-week sequence. Instruction took place on most days during this 4 week sequence for approximately 90 minute segments. The first two sessions focused on pre-reading activities to connect students to the topic and build background knowledge .To introduce the unit; students participated in an on-line simulation as a whole class that required the students to make choices in completing the photosynthesis process. Students completed an on-line, pre-reading quiz where the students could take the self-correcting quiz as many times as they wanted with their final grade recorded as a quiz grade. They also completed an Anticipation Guide, which they revisited at the end of the unit focusing on statements that would be explored during the unit. The students also completed an activity focusing on determining the meaning of key terms from the unit while utilizing contextual skills.

Having key background information and understanding of some key terms, the teacher completed a read aloud of the Choral Reader's Theatre script. The teacher used this read aloud to emphasize key ideas and establish the relationships between the different choral parts while also emphasizing prosody in terms of reading inflection and emphasis.

The next instructional days were then devoted to the students working in their choral groups practicing their script while also completing during reading activities focusing on reading of the science text while working in pairs to complete a graphic organizer focusing on each plant part and its function. The students also completed graphic organizers focusing on deep processing of the key vocabulary terms.

After several sessions of the students practicing their choral parts, the class convened to practice reading the script as a whole class with emphasis placed on students reading in unison and making the script performance fluid.

The students were also broken into cooperative groups with each group researching a designated "dangerous plant". The material for reading was taken from various Internet based sources and rewritten at the appropriate grade level of the students with the reading focusing on the material that the groups needed to complete their research. The students would then design an on-line cooperative book using the UDL on-line bookmaking tool with students performing different differentiated roles in the book's creation.

The final day of the project consisted of the students performing their Choral Reader's Theater Script for a select audience of the evaluators, the principal, and a video technician who recorded the presentation.

## Methods

The research design for the Choral Reader's Theater classroom project used a mixed methods approach. The purpose of this approach was to collect, analyze, and integrate both quantitative and qualitative data during the research process within a single study (Creswell, 2003; Tashakkori & Teddlie, 2003). The quantitative numeric data (pre/posttests) and the qualitative text data (observations/ student and teacher interviews) were collected and analyzed concurrently. Integration of the data occurred during the interpretation of the study's findings.

This concurrent mixed methods study investigated the impact that CRT had on n=21 third grade children. Measured by the *Basic Reading Inventory (BRI) 11<sup>th</sup> Ed* (Johns, 2012), the children's word recognition, automaticity and comprehension were calculated to report their overall instructional reading level. In addition, *The Multidimensional Fluency Scale* (Zutell & Rasinski, 1991) was utilized to measure prosodic elements of fluent reading. Further, 12 key vocabulary words related to the science unit were measured by a teacher made test from pretest to posttest. Concurrently, this investigation also provided a description of the children and teacher's perceptions during the choral reader's theater project. The intent of this study was to address the following three research questions:

1. What is the difference in reading outcomes from pretest to posttest for the children in their reading, after the Choral Reader's Theatre project?
2. How do the students perceive themselves as readers, within the context of the Choral Reader's Theatre project?
3. What impact did the Choral Reader's Theatre project have on the teacher's perception of her literacy practice?

## Participants

### *Students*

Twenty-one third grade students voluntarily participated in this study. However, during the 4-week study the researchers obtained pre/posttest data on n=20 students, as n=1 student was not in attendance for the pretest assessment. Furthermore, n=2 students were not in attendance for the vocabulary pretest. Therefore vocabulary pre/post data were collected on n=19 students.

### *Teacher*

Ms. Carolyn Halle is an 18 year veteran elementary school teacher. She received her B.S. degree in Elementary Education and her M.A in Elementary Education in Math and Science from the University of South Florida. Ms. Halle is a Montessori trained instructor and Reading Recovery certified. She has also attended Summer Institute at Columbia University Teacher's College NY, Reading and Writing Project.

### *Study Context: Academe DaVinci*

Academie Da Vinci Charter School for the Arts is a K-5<sup>th</sup> grade elementary school located in Dunedin, Florida. There are two classrooms for each grade level, enrolling a total of 232 students. Academie Da Vinci is part of Pinellas County Schools, and follows the districts



calendar, curriculum, and state assessments. However, as stipulated in their state charter, they enhance that curriculum with a program of the arts. In addition to Language Arts, Math, Science, Social Studies, Health, and Physical Education, every student participates in Dance, Chorus, Musical Instruments, and Visual Arts.

### Data Collection

Pretests were conducted prior to the first week of the 4-week study with n=21 third grade students from one classroom. The readers were assessed by gauging a baseline reading level. This was accomplished by using word lists from the BRI organized by grade level. Once baseline levels were obtained, the researchers had each student read expository passages orally as they conducted a miscue analysis, reading rate, and asked comprehension questions, to calculate the overall instructional reading level for each student. In addition, measures of prosodic reading were taken using Zutell and Rasinski's *Multidimensional Fluency Scale*. Finally, data were also collected from the student's definitions of the 12 key vocabulary words on demand. Posttests occurred after the study completion, followed the same procedures as the pretests.

In addition to the quantitative data from the third grade readers test scores, the researchers also collected qualitative data. Class observations were conducted on the student's performance of the CRT project. Furthermore, during the posttests each student was interviewed individually, and at the conclusion of the study the classroom teacher was interviewed.

### Data Analysis

Data analyses were concerned with the research questions and the integration of the data to meet the study's design. The quantitative research question addressed what is the difference in reading outcomes from pretest to posttest for the third grade students after the CRT project. Comparisons were conducted for differences reported by the t-test statistics from pretests to posttest. The means, standard deviations, and effect size were calculated for all the continuous variables, and percentages for all categorical variables were derived in order to describe the sample. Measures of reliability were addressed through an inter-rater analysis

The data analysis for this qualitative case study involved a careful review of data gathered from the student observations and the student's and teacher's interviews using constant comparative form of analysis (Glaser & Strauss, 1967). The elements were then grouped according to the construct names and the frequency of each construct was tallied to determine whether or not an element was emphasized. To ensure that the qualitative phase of this study was credible, two literacy experts' reviewed data separately. Themes from the data were developed later, when they conferred and reached consensus. In addition, a triangulation strategy for this concurrent mixed methods study is described and addresses the credibility of this study. Triangulation of the data occurs in the results summary section of this study.

### Results

A content analysis for the interpretive case study was conducted and themes that emerged from the data were identified. The themes that emerged included: *Reading Words Fluently in*



*Informational Text*, *New Understanding on the Topic*, and *Performance with Prosody*. These themes encompassed the essence of the children perceptions of themselves as readers and the impact on the teacher perception of literacy practice during the CRT project. Table 1 presents these themes and the frequency with which they occurred in the data collected from the children’s observations and children and teacher’s interviews.

Table 1

*Themes from the Qualitative Case Data*

Theme	Frequency
Reading Words Fluently in Informational Text	18
New Understanding on the Topic	15
Performance with Prosody	12

Descriptions from the qualitative data were integrated with the statistical findings in the results section of this study. Triangulation occurs in the summary of the results.

***Reading Words Fluently in Informational Text***

During the science unit the third grade students were provided with opportunities to practice and utilize many strategies for reading words accurately and with automaticity with informational text. The teacher reported:

- *I have been teaching these strategies all year but it seems so easy to integrate them in this unit.*

(Teacher Interview, June 10)

To assess the reading difference after the CRT project from pretest to posttest, word recognition and comprehension were calculated to report the overall instructional reading levels (RL), and reading rates (WPM) were calculated in reading fluency for n=20 readers. Table 2 presents the means and standard deviations for instructional reading levels and reading rates from pretest to posttest.

Table 2

*Summary of the Basic Reading Inventory Pretest and Posttest for the Third Grade Readers*

Reading Components	Pretest M (n=20)	SD (n=20)	Posttest M (n=20)	SD (n=20)
RL	5.1	0.988	5.3	0.923
WPM	98wpm	34.737	113wpm	27.744

An examination of Table 2 finds higher instructional reading level (RL) and reading rate (WPM) achievement scores were attained at posttest compared to the pretest. A dependent samples *t*-test was conducted for  $n=20$  third grade reader in RL and WPM.

The pretest scores for RL ( $M = 5.1, SD = 0.988$ ) were significantly lower than the posttest scores ( $M = 5.3, SD = 0.923$ ),  $t(2.5) = 0.0209, p < 0.05$  with a small effect size of  $d=0.2$ . In addition, the pretest scores for WPM ( $M = 98 \text{ wpm}, SD = 34.737$ ) were significantly lower than the posttest scores ( $M=113 \text{ wpm}, SD = 27.744$ ),  $t(2.74) = 0.013023, p < 0.05$  with a medium effect size of  $d=0.5$ . One explanation for the increase in reading achievement may have been because the students had internalized fluency strategies for accuracy and automaticity when reading words in informational text. The students reported:

- *I liked breaking the words apart... it made it easier to read.*
- *It was easier to read my science textbook.*
- *Sometimes you look for the root word and that helps to read it.*
- *I could read the really big words faster.*
- *The more you read the word, the easier it gets*

(Students' Interview, May 2013)

### ***New Understanding of the Topic***

Content vocabulary is important for building reading comprehension on the topic being studied (Nagy, 1988). The third grade students were provided explicit and implicit vocabulary instruction throughout this unit to deepen their understanding on the topic of plants. Twelve key vocabulary words were identified to build new understanding on plants structure and function. During the teacher interview the teacher commented:

- *At first I thought the vocabulary identified were too simple for third grade students and then I realized that although the students could read and identify the vocabulary it was at a surface level.*

(Teacher Interview, June 2013)

Percentages were calculated to assess the difference from pretest to posttest on vocabulary understanding for  $n=19$  readers. The third graders were assessed on their definitions of the 12 key vocabulary words. Table 3 presents the means and standard deviations for scores on vocabulary definitions from pretest to posttest.

Table 3

Summary of the Pretest and Posttest Percentages for Vocabulary Assessments

	Pretest M (n=19)	SD (n=19)	Posttest M (n=19)	SD (n=19)
Vocabulary	63%	9.181	89%	8.6

Table 3 results show higher percentages were attained in vocabulary scores at posttest compared to the pretest. A dependent samples *t*-test was conducted for n=19 third grade readers for vocabulary. The pretest scores for vocabulary ( $M = 63\%$ ,  $SD = 9.181$ ) were significantly lower than the posttest scores ( $M = 89\%$ ,  $SD = 8.661$ ),  $t(14.3) = 0.00001$ ,  $p < 0.05$  with a large effect size of  $d = 2.1$ , indicating the vocabulary understanding for these third grade readers scores significantly increased from pretest to posttest. The students commented that once they learned the vocabulary they had a different understanding of the word and the topic. The readers reported on their new understanding of the topic were as follows:

- *Did you know that birds help pollinate plants?*
- *At first I thought germinate was to spread germs.*
- *Roots anchor the plant in the soil. They have tiny hairs that help absorb water.*
- *Most of the plant food is made in the leaves.*

(Students' Interview, May 2013)

**Performance with Prosody**

Prosodic reading is the bridge that connects accuracy and automaticity to comprehension (Pikulski and Chard, 2005). Voice and expression provides opportunities to hear the reader interpretation and understanding of text. Prosody in reading occurs as a result of wide and deep repeated reading. An authentic and engaging approach to support prosodic reading is through performance of text, as was the case in this Choral Reader's Theater project. This repeated practice connected fluency to comprehension as the student's internalized the content they performed. The teacher cited an example of how the student's prosody and comprehension deepen their understanding of the topic:

- *One day I was about to discuss how the roots of the plants absorb water and without prompting all the students starting reciting from the reader's theater script the function of the roots with expression and voice .*

(Teacher Interview, June 2013)

To assess the reading difference in the prosodic reading after the CRT project from pretest to posttest for n=20 third grade students, scores were calculated on the prosody elements of expression, phrasing, smoothness, and pace Table 4 presents the means and standard deviations for scores on all prosodic elements from pretest to posttest.

Table 4

Summary of Pretest and Posttest Scores on Reading Prosody Elements

Element	Pretest M	SD	Posttest M	SD
Expression	3.0	0.604	3.4	0.670
Phrasing	3.0	0.725	3.3	0.500
Smoothness	3.2	0.767	3.6	0.604
Pace	3.2	0.852	3.5	0.686

Table 4 finds higher achievement attained in all prosody element scores at posttest compared to the pretest. A dependent samples *t*-test was conducted for n=20 third grade readers on each of the elements of prosody.

The pretest scores for expression in prosodic reading ( $M = 3.0, SD = 0.604$ ) were significantly lower than the posttest scores ( $M = 3.4, SD = 0.670$ ),  $t(3.56) = 0.0021, p < 0.05$  with a medium effect size of  $d=.6$ . In addition, the pretest scores for phrasing in prosodic reading ( $M = 3.0, SD = 0.725$ ) were significantly lower than the posttest scores ( $M = 3.3, SD = 0.670$ ),  $t(2.52) = 0.0209, p < 0.05$  with a medium effect size of  $d=.6$ . Further, the pretest scores for smoothness in prosodic reading ( $M = 3.2, SD = 0.767$ ) were significantly lower than the posttest scores ( $M = 3.6, SD = 0.604$ ),  $t(3.2) = 0.00472, p < 0.05$  with a medium effect size of  $d=.6$ . Finally, the pretest scores for pace in prosodic reading ( $M = 3.0, SD = 0.852$ ) were significantly lower than the posttest scores ( $M = 3.5, SD = 0.686$ ),  $t(2.3) = 0.0298, p < 0.05$  with a medium effect size of  $d=.4$ . Overall, all the prosodic elements at pretest showed a mean 3.1 which was lower than at posttest with a mean of 3.45 The results revealed that performance activities not only promote prosodic reading, but also enhance understanding. Comments made by the readers:

- *I could read the script loud and with attitude. People understood what I meant!*
- *Learning this way helped me remember all the facts. It is like singing a song.*
- *Rereading the script and practicing how to say it over and over was a great way to learn about plants.*
- *I liked that we worked in small groups... that way I didn't have to perform by myself.*

(Students' Interview, May 2013)

## Summary of the Results

The goal of the CRT project was to investigate the gradual release of choral reading as a bridge for automaticity to prosody in fluency to comprehend informational text. It was found that for (n=20) third grade readers, there was significant increase of 2 months from pretest to posttest in their instructional RLs. In addition, there was a significant increase in reading rate of 15 WPM from pretest to posttest for n=20 readers. Furthermore, there was a significant increase of 23% points on vocabulary scores attained for n=19 third grade readers. Finally, the elements of expression, phrasing, smoothness, and pace for prosodic reading showed a significant increase from pretest to posttest. Therefore, the study findings indicated that the CRT classroom project was effective in increasing fluency skills and science content knowledge across the unit of study.

Central to most theories on motivation is a student's sense of self-efficacy, a belief in how competently he/she will perform a specific task (Bandura, 1997). In the theories of motivation through engagement, the focus has been on intrinsic and extrinsic motivation. Intrinsic motivation broadly means that students engage in an activity such as reading, out of curiosity, in pursuit of interest, to express a preference for challenging text, and to demonstrate a disposition to read. Extrinsic motivation relates to engagement for students in an activity such as reading, towards the physical outcome of a reward or grades. The most highly internalized level of motivational development is intrinsic motivation (Guthrie & Davis, 2003). At this point, the reader will engage in literacy activities for their own enjoyment, regardless of the reward or a grade. This suggests that a reader who is engaged in his/her reading would be more motivated to read.

## Discussion

The CRT classroom project yielded positive results for the third grade students' fluency and understanding of the science unit on plants. This project investigated the gradual release of choral reading as a bridge for automaticity to prosody in fluency to comprehend informational text. The findings revealed that this project had a significant effect for all of the third grade students.

When thinking about instructional practices related to a unit of study in science, fluency is often not a consideration. However, it should be, because a student must read fluently in order to comprehend the content being taught. In this CRT classroom project the students made significant progress because of the explicit and implicit fluency instruction through wide and deep reading.

In order to comprehend text, students have to recognize the words they encounter automatically. Automatic word recognition directs the focus on making meaning of what they are reading and decoding becomes automatic. The third grade students in this study were given many strategies in morphemic analysis for multi-syllabic/uncommon words. This assisted them in decoding and encoding with automaticity, which resulted in a significant increase in reading rate when reading informational text.

Reading accuracy requires that a student decodes the words read correctly, however with academic/content vocabulary words understanding their meaning can interfere with comprehending the passages being read. Many activities in this study were effective and significantly supported deep processing of vocabulary through semantic analysis and wide

reading. However, the bridge from accuracy and automaticity is to prosody so the students could comprehend the topic of this study was the Choral Readers Theatre.

Prosodic reading occurs when a student uses their voice with expression to demonstrate understanding of the text they are reading. Effective fluency instruction to enhance prosody in reading comes as a result of wide and deep repeated reading. One way to enhance prosodic reading authentically is during a reader's theater performance. The teacher models expressive reading and then release responsibly for the students to practice repeatedly until they are fluent and can perform their parts independently.

Choral reading is a form of assisted reading that involves several readers reading the text aloud together (Rasinski, 2010). The teacher models appropriate expressive reading and rate and then the teacher and students read along in unison repeatedly until she/he gradually releases the students to read in unison as a group. This is an excellent way to scaffold for a less proficient reader to gain by reading while at the same time hearing a more fluent reading by their peers (Rasinski, 2010).

The CRT project combined the instructional fluency strategy of choral reading within a reader's theater performance. The teacher assists and scaffolds the small choral reading groups and gradually releases the group to repeated practice until they reach fluency. Then the small choral reading group's alternate modeling renditions of their role for the other groups through repeated practice. Finally, the groups interact and perform in unison. The results of combining these two instructional fluency strategies showed a significant increase in prosody elements of expression, smoothness, phrasing, and pace and a 2-month increase in instructional reading level after 4 weeks.

### **Implications for Instruction**

As noted in the findings, it appears that enhancing fluency skills through a choral reader's theater performance across a science unit, appears to have a direct connection to reading comprehension for this class of third grade students. This was accomplished using the essential elements of literacy instruction through wide and deep (repeated) reading of the choral reading script. While many teachers may use wide reading and embedded literacy elements in their units of study, research reviews on fluency have shown that word recognition accuracy, automaticity, comprehension, and attitude toward reading have been shown to improve with repeated readings (Dowhower, 1994; Kuhn & Stahl, 2003; Rasinski, Reutzel, Chard, & Linan-Thompson, 2011). Therefore, teachers might consider including repeated reading through their unit of study to enhance comprehension of the topic they are teaching. This will certainly include content based topics and themes. One way to address this is what was done in this study with weaving the choral reader's script throughout the unit of study. Using repeated reading will greatly enhance reading and engagement for students reading informational text. The study has shown that this is a great method for getting students excited about reading informational text!

The script is easily developed and could align to any unit of study. In this study the script included factual information about the structure and functions of plants including key vocabulary words. The students were grouped by instructional reading level (3 to 4 in a group) and repeated reading practice occurred for 10-15 minutes daily for 4 days. The teacher models fluent reading and gradually releases the practice to the groups. Once the teacher felt the groups were reading fluently all the groups came together and each group would model their parts while rest of the groups read along silently. As noted in the findings, vocabulary (23% increase), reading rate (15 wpm increase) and prosody (3.1 to 3.45 increase) showed significant and effective increases in all areas, during the 4-week unit, which helps to bridge accuracy, automaticity, and prosody in reading fluency to reading comprehension. This suggests that fluency strategies that focus on repeated reading with choral and performance based scripts have profound effects on students' fluency and comprehension.

Utilizing repeated reading through a performance makes the task authentic, motivating and engaging. When the students were interviewed 100% reported that this was a great way to learn the information. While the research on reader's theater has shown positive effects on reading fluency and comprehension, students often perform individually. During this study choral reading was used for performance delivery. This assisted reading was very supportive especially for students who may have reading difficulties. While there is limited research on the effects of choral reading (Paige, 2011), the current 4-week study showed a significant increase of 2 months in the third grade overall reading levels.

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