LEARNERS & LEADERS

Action Research Journal

OCONOMOWOC
AREA SCHOOL DISTRICT

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DBT Skills in Schools: Effect on Reducing Suicidal Ideation in High School Students

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Abstract

Over the past decade, an increasing number of students are struggling with their mental health. The Center for Disease Control has recently collected nationwide data using the Youth Risk Behavior Survey and described how teens are faring. The numbers show that 4 in 10 U.S. high schoolers experienced persistent feelings of sadness or hopelessness in 2021. Nearly a quarter reported they have seriously considering attempting suicide. Teen girls and LGBTQ+ youth are struggling the most, with the highest rates of sadness recorded by the CDC in a decade. This study examined whether students who use positive coping strategies to handle academic and social challenges are better able to manage stress and demonstrate resilience, leading to increased school success. The method used in this study was the intentional instruction of Dialectical Behavioral Therapy (DBT) using the DBT Skills in Schools: Skills Training for Emotioanl Problem Solving for Adolescents (DBT-STEPS-A) curriculum to introduce coping strategies and measure whether this resulted in reduced emotional distress, lowered suicidal ideation, and relatedly, improved social and academic functioning. Students completed a pre-assessment before receiving a series of lessons on coping strategies in the areas of emotional regulation, distress tolerance, and problem solving. Students then completed the same assessment after instruction. Standardized mean gain scores ranging from +0.21 to +0.68 indicate substantive improvement in coping skills, reduced anxiety and depression, and increased engagement in academic functioning. Anecdotal data also showed a positive influence of intentional instruction of effective coping strategies on student resiliency.

Keywords: DBT, coping strategies, problem solving, emotion regulation, distress tolerance, suicidal ideation

Introduction

According to data from the National Survey of Children's Health, children in the U.S. are experiencing a mental health crisis, with rates of anxiety and depression at unprecedented levels. The results of the 2021-2022 Youth Risk Behavior Survey (YRBS) data given to all high school students at Oconononomowoc High School highlighted a need to identify and support students who reported experiencing suicidal ideation or thoughts relating to suicide. According to the most recent 2021 - 2022 YRBS data, 15.0% of students (213 students) who completed the survey seriously considered suicide in the past 12 months. Additionally, 12.0% of those students, (171 students) reported making a plan for a suicide attempt.

Currently, the only universal curriculum delivered to all students at OHS that addresses mental health and suicide prevention is Oconomowoc High School's Health course. This course is required for graduation, and gives a general overview of national suicide statistics and identifiable characteristics of an individual who might be considering suicide. There is currently no program that focuses on providing students with the tools and resources to manage suicidal ideation or mental health challenges.

In response, our team researched evidence based curriculums and interventions that have shown to be effective in reducing suicidal ideation and improving mental health outcomes among high school students. The *Dialectical Behavioral Therapy Skills Training for Emotional Problem Solving for Adolescents (DBT STEPS-A)* curriculum is designed to directly address increasing mental health for students who are considering suicide or have a plan to attempt suicide, through school based intervention. The purpose of this study is to measure the efficacy of the DBT STEPS-A program as a small group intervention with our high school students at OHS. Secondarily, this research study will explore the impact on the Oconomowoc Area School District (OASD) key performance indicators of attendance and office discipline referrals.

Literature Review

As stated above, we intend to investigate the effects of the *DBT-STEPS-A: Skills Training for Emotional Problem Solving for Adolescents* curriculum on student resiliency when we purposefully instruct specific strategies that support social-emotional learning. We will determine if the intentional instruction of effective coping strategies of emotional regulation, decision making, conflict resolution and distress tolerance will reduce students' suicidal ideation, resulting in an increase in overall mental wellbeing and the ability to problem-solve, face challenges, and increase academic performance.

The *DBT STEPS-A* curriculum was developed by doctors James Mazza, Elizabeth Dexter-Mazza, Alec Miller, Jill Rathus, and Heather Murphy (2019). These authors are leading experts in DBT and school-based interventions, and have written the manual to offer the first nonclinical application of DBT skills in the school environment. This curriculum includes lesson plans on dialectical behavior therapy (DBT) skills that have been demonstrated to be effective in helping adolescents manage difficult emotional situations, cope with stress, and make better decisions, and is designed to be taught at the universal level in grades 6-12. It includes explicit instructions for teaching mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness and has been shown to reduce depression, social stress, anger and risky behaviors such as alcohol and other drug use as well as increase school attendance and GPA (Miller et al., 2014). In small groups, we will be presenting these lessons and encouraging students to work through a different coping strategy each week.

Preliminary studies of the efficacy of DBT skills in schools have been promising. A randomized control study of adolescents with multiple concerns who received comprehensive DBT, as compared to those who received enhanced usual care, had significant reductions in self-harm, depression, hopelessness, and borderline personality symptomatology after 16 weeks of treatment (Mehlum, Tormoen, Ramberg, Haga, diep, Laberg et al., 2014). A study of eighth graders attending an alternative school in Washington who received the first two modules of DBT STEPS-A curriculum (Mindfulness and Distress Tolerance) also yielded positive results. According to Mazza and Hanson (2014b), of those students, 80% reported that they

used the skills themselves and approximately 90% endorsed the skills being useful to others. Haskell, Daly, Hildenbrand, Nicholls, Mazza, & Dexter-Mazza (2014) found a significant reduction of overall emotional distress scores in 9th graders attending a school in Pennsylvania where *DBT-STEPS A* was implemented school wide. In general, SEL programs, including *DBT STEPS-A*, have been shown to reduce office referrals and disciplinary actions, according to Cook, Gresham, Kern, Barreras, & Crews, (2008).

Research Design

The DBT Skills in Schools research design uses the *DBT STEPS-A* curriculum with groups of students during pride period at Oconomowoc High School. Pride period is a resource period at the high school that is 30 minutes in length. The groups range from 5-10 students and the group meets weekly for eight to ten sessions. Groups use the *DBT STEPS-A* lessons as well as a range of check-in and team building activities to promote group cohesion.

At the beginning of each group, members take a pre-assessment that measures their current exposure of DBT skills, their current understanding and use of effective coping strategies, current functioning, their sense of belonging, and level of academic engagement at Oconomowoc High School. The same assessment is given at the conclusion of the DBT group to measure if any change has occurred in group members' scores. During the 2022-2023 academic year, a total of ten DBT groups were completed to fidelity, with a total of 53 students participating in those groups. The group intervention was offered to an additional 15 students who either declined to participate, or were not provided with parental permission. The list of questions asked on the pre/post-assessment is located in Appendix A.

Dissemination of Findings

An overview of the data collected can be found in the table below. The questions that are bolded show a significant area of change from pre- to post-assessment.

Table 1.1 - DBT Skills in Schools Group Data

	I feel in control of my life and future	I feel confident in myself	I experience symptoms of anxiety	I care about school	I do my homework	I stay away from vaping, tobacco, alcohol, and drugs	I deal with frustration in positive ways	I take responsibility for what I do	I experience symptoms of depression
Pre-Test	1.32	1.26	1.94	1.45	1.21	2.52	1.17	2.15	1.52
Post-Test	**1.56**	1.25	2.06	**2.13**	**1.50**	**2.31**	**1.63**	1.88	1.63

	I feel safe at school	I feel that at least one teacher cares about me	I ask a teacher for help when needed	Use a positive coping strategy when stressed	Mindfulness /Wise Mind	Emotional Regulation	Distress Tolerance	Healthy Relationships
Pre-Test	1.64	2.00	0.83	0.77	3.77	3.27	3.18	3.39
Post-Test	1.63	**2.46**	**1.50**	**1.31**	**4.00**	**3.56**	**3.31**	**3.44**

Data Analysis

The summary of data from our DBT Skills in Schools study with 53 students at Oconomowoc High School can be found in Table 1.1. The highest areas of growth in the data were the following: “I care about school” (+0.68), and “I ask a teacher for help when needed” (+0.67). These questions reflect an increased investment from students in their academic performance. Anecdotal data collected from students throughout the groups suggest students who put more effort into their academic performance are typically more vested in their futures and experience lower levels of suicidal ideation. We observed that students who are more likely to ask a teacher for help can have more positive academic outcomes and are likely to advocate for themselves.

Other notable observations from the data included students reporting increased knowledge and skills in each of the areas taught specifically in the *DBT-STEPS-A* curriculum of Mindfulness (+.23), Emotional Regulation (+.29), Distress Tolerance (+.13) and Interpersonal Effectiveness (+.05).

Findings and Implications for Practice

In conclusion, given the data described above from pre-and post-assessments, as well as grades and attendance rates of students who participated to fidelity in the *DBT-STEPS-A* groups at OHS during the 2022 - 2023 school year, the *DBT-STEPS-A* was found to be an effective intervention for high school students at OHS. The data supports that students who participated in the intervention increased their skills in the areas of mindfulness, emotional regulation, distress tolerance, and building healthy relationships. The data also showed that these students reported a decrease in depression and anxiety. Voluntary student participation in the groups was found to be an essential component for success, in addition to parental permission and related support. When students participated voluntarily, we found that 79% of participants demonstrated high levels of engagement, and expressed an interest in diving deeper into a level two DBT group. As a result, in June of 2023, one member of our research team will attend an Advanced *DBT-STEPS-A* training through CESA 1. As a team, we then plan to build a level two curriculum and improve our current lessons over the 2023 - 2024 school year. We will also critically evaluate our current lessons by going through each lesson and discuss the learning objective and whether or not the lesson was effective within the group.

It is our hope that more educators are able to be DBT trained to increase SEL support for students in need, given the effectiveness of this intervention. These individuals would first include school counselors, learning strategists, and our Alternative Education teachers who could offer the Tier 2 small groups for students with higher social and emotional needs. Additionally, increased collaboration with school wide teams such as PBIS, where some of the key components of DBT could be infused into our Tier 1 SEL curriculum. Finally, the continued support from administrators is

important to focus on building effective mental health coping skills for students, and reduce the need for disciplinary measures.

Appendix A

DBT Pre-/Post-Assessment

I feel in control of my life and future

Rarely
Sometimes
Often
Almost Always

I feel confident in myself

Rarely
Sometimes
Often
Almost Always

I experience symptoms of anxiety (feeling nervous, restless or tense, having a sense of impending danger, panic or doom, feeling weak or tired, trouble thinking about anything other than the present worry)

Rarely
Sometimes
Often
Almost Always

I care about school

Rarely
Sometimes
Often
Almost Always

I do my homework

Rarely
Sometimes
Often
Almost Always

I stay away from vaping, tobacco, alcohol, and drugs

Rarely
Sometimes
Often

Almost Always

I deal with frustration in positive ways
Rarely
Sometimes
Often
Almost Always

I take responsibility for what I do
Rarely
Sometimes
Often
Almost Always

I experience symptoms of depression (continuous low mood or sadness, feeling hopeless and helpless, low self-esteem, no motivation or interest in things)
Rarely
Sometimes
Often
Almost Always

I feel safe at school
Rarely
Sometimes
Often
Almost Always

I feel that at least one teacher cares about me
Rarely
Sometimes
Often
Almost Always

Appendix B

Anecdotal Feedback from 2022 - 2023 DBT-STEPS-A Groups

Student

- "I thought the lessons were helpful, and I will use them in my life." - Male student, 11th grade
- "I felt safe sharing in the group. I felt a little standoffish at first but learned that others are just like me." - Female student, 10th grade
- "I want to thank the DBT leaders for helping me become a better person and the members for being trustworthy." - Female student, 10th grade
- "Wise Mind was really useful for me, I will use it to help me see things differently and not take things personally right away." Female student, 10th grade
- "What I liked best about this group was it taught me new ways to cope with stress such as using deep breathing. I would recommend to other students that if they are looking for good strategies then this group is for you." - Male student, 9th grade
- "This group helped me feel less trapped like I used to feel at school. It helped me deal with situations more fairly. It was a nice, cozy, safe place for me. If someone I knew was considering it, I would tell them they should participate because it helps teach you lessons in how to deal with anxiety." - Male student, 9th grade
- "I hope you guys do a level 2 DBT group next year, I really want to be part of that if you do."

Parent

- "I think the DBT group has been great for my daughter and I am so glad it is offered at OHS. I think it has helped her to see that other students have similar challenges to her and she is not alone. It also gives her a safe place to process situations and how she can better handle her emotions." ~Parent of 10th grade student

Staff

- "This intervention has been very helpful for some of our students who were frequently being referred to the office for disciplinary reasons. I hope that more students will be able to participate in these groups next year." ~Associate Principal
- "It was great for the students who were invested, students who had prior mental health support especially seemed engaged and it gave them a way to apply the skills from therapy into the school setting." - Learning Strategist

Learners and Leaders

The Impact of Phonics Instruction in Grades Three and Four on Reading Fluency Rates

Submitted October 2022

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The Impact of Phonics Instruction in Grades Three and Four on Reading Fluency Rates

Introduction

When reviewing data of third and fourth grade students across Oconomowoc Area School District (OASD), it was determined those who perform at the 70%ile and above, will achieve a score of proficient or advanced on the English Language Arts portion of the Wisconsin Forward Exam. There are a large number of students whose reading fluency is below the college and career readiness benchmark on the FAST Curriculum Based Measure of Reading (CBMR). Although most students' accuracy rate on the CBMR meet benchmark expectations, their fluency rate does not. This can be traced back to students' lack of mastery of phonics skills.

The district adopted a phonics program as part of the literacy curriculum in kindergarten, first, and second grades, created by The Teachers College Reading and Writing Project. As part of the Phonics Units of Study curriculum, the Developmental Spelling Assessment (DSA) is given three times a year in kindergarten, first, and second grades to monitor student application and mastery of phonics principles. Unfortunately, data from the DSA shows the majority of kindergarten, first, and second grade students have not mastered the phonics skills taught in their respective grades.

There is further evidence of students not applying and mastering phonics principles when reviewing district data from the Words Their Way spelling inventory in third and fourth grades. Data shows that numerous phonics skills have not been mastered by the start of third grade. The district data around phonics is alarming because mastery of phonics is a necessary component of learning to read. Another reason for concern is that the Phonics Units of Study commence after second grade. There is abundant research indicating that systematic phonics instruction is critical for dysfluent readers in third and fourth grades, which is why there is a need for this Learners and Leaders proposal.

We believe this research project will have a direct impact on the following District Key Performance Objectives:

1. The percentage of students in grades 3-8 scoring 'Proficient' and 'Advanced' on the Wisconsin Forward Exam in Reading and Math will continue to increase annually until OASD is among the top three school districts in Waukesha County at each grade level.
2. The proficiency level of student groups (gender, poverty, English language learners, disability, and minority) will increase each year on the Wisconsin Forward Exam and ACT exam in Reading and Math until their performance matches the overall test population.

Literature Review

Three district literacy coaches will investigate if continuing instruction in systematic phonics in grades three and four would increase the fluency scores of the FastBridge Learning Curriculum

Based Measure in Reading (CBMR) in order to continue to improve on the Wisconsin Forward Exam.

The Oconomowoc Area School District has used the Words Their Way word study curriculum for over fifteen years. Teachers have expressed frustration by the lack of transfer of reading words to spelling words within student writing. Teachers are also concerned that, despite implementing a year of Words Their Way lessons, many students remain at the same spelling stage. The stagnation of student placement prevents most students from being exposed to many of the foundational standards listed in the Wisconsin English Language Arts State Standards that are expected to be mastered at each grade level.

> For example, a third grade foundational standard states that students will:
> RF.3.3 Know and apply grade-level phonics and word analysis skills in decoding words.
> a. Identify and know the meaning of the most common prefixes and derivational suffixes.
> b. Decode words with common Latin suffixes.
> c. Decode multisyllable words that include all learned syllable patterns (see previous grade level standards for specific targets).

Third grade teachers realize most of their students are not exposed to these standards through Words Their Way because they do not reach the spelling stage where these skills are taught. Wiley Blevins states that students often remain in lower grade level phonics and word study skills because of the scope and sequence, exposure and/or lack of mastery. This means when students move to the next grade level they continue to fall further and further behind. Although it's important to fill the phonics gaps, it's critical that all students are exposed to grade level skills, which Words Their Way does not do.

To further understand the impact of the implementation of Words Their Way, a review of literature was completed to learn about the effect size of the Words Their Way program. Pedagogy Non Grata conducted a study on Words Their Way, but in order to understand the findings, a few basic terms must be discussed. Analytic phonics is a type of phonics that teaches phonemes through larger word families. This is the approach that Words Their Way uses. Synthetic phonics teaches students to break words down into the smallest unit of sounds (phonemes) and blend the sounds together to form words. Research has shown that synthetic phonics has been shown to have higher results than analytic phonics. The National Reading Panel (NRP) meta-analysis found a mean effect size of .45 for synthetic phonics in comparison to an effect size of .34 for non-synthetic approaches (Chapter 2, p. 132 National Reading Panel). It is also problematic that Words Their Way teaches phonics through an inquiry approach. The NRP meta-analysis found phonics programs with a direct instruction approach outperformed other approaches by an effect size of .48. For these reasons, Pedagogy Non Grata did not recognize Words Their Way as evidence-based or research-based (NRP 2001).
Researchers believe a change is needed to provide systematic and explicit word study for third and fourth graders in the Oconomowoc Area School District. By third grade students need to read multisyllabic and irregularly spelled words. They should know the six different syllable

types and effortlessly apply them when breaking words apart. This is necessary to achieve fluency when reading.

> "Reading fluency improves reading comprehension. As sentences become longer and more complex, students need to get through enough words fast enough to make a meaningful chunk. If they don't, their understanding breaks down. If students have to devote too much time to decoding, their reading will be slow and labored. This is characteristic of many struggling readers." (Blevins, 2017)

At Park Lawn, third grade teachers administered the end of second grade Developmental Spelling Inventory (DSA) to third grade students to see where students were performing in phonics concepts taught the previous year. The DSA assessed seven different phonics concepts, and mastery in each of the seven concepts was determined with a score of five or six. These seven phonics concepts were expected to be mastered by the end of second grade. In reviewing data from the DSA given in October of this year to the third grade students at Park Lawn, three classrooms showed the need to reteach four, five and six of the seven phonics concepts assessed, respectively. The need to reteach phonics concepts in third grade classrooms was determined if ten or more students did not meet mastery in the phonics concepts assessed. This data indicates a high need for continued explicit phonics instruction in our third grade classrooms.

Third grade teachers' concern for lack of work study created the need to look at programming. The researchers looked at EdReports, a company that provides free reports that help evaluate instructional materials for high-quality content. *From Phonics to Reading* received the highest rating of "Meets Expectations" according to EdReports in three of three criteria:

1. Phonics
2. Word Recognition and Word Analysis
3. Decoding Accuracy/Automaticity and Fluency.

In addition to being explicit and systematic, *From Phonics to Reading* also includes seven key components that research identifies as essential to student success. The seven key components include:

1. Readiness skills
2. A sensible scope and sequence
3. Blending activities
4. Dictation
5. Word awareness
6. High-frequency words
7. Connected text

These seven components provide opportunities to apply and transfer phonics skills to authentic reading and writing tasks. Ensuring these components are in place is a critical first step in developing a phonics instructional strand that will meet the needs of readers.

Although phonics instruction is readily accepted as part of the primary literacy curriculum, there is much evidence stating its importance beyond second grade. By third grade, independent reading accelerates reading growth. Children on a typical developmental trajectory should enter third grade with a substantial sight vocabulary and the ability to decode many words. They should be ready to learn to decode multisyllabic words and to read increasingly complex text independently. Because foundational skills such as vowel sounds and syllable types are not mastered, many third graders struggle to apply foundational skills to multisyllabic words.

Other children will enter third grade with gaps in earlier phonics knowledge or slow, inaccurate decoding. For these students, independent reading will not have the desired impact on reading growth until word reading is more accurate and fluent. Instruction that includes explicit phonics and plenty of active practice can put children back on a successful trajectory (Torgesen, 2002).

While an understanding of spelling patterns aids reading success, children's awareness of phonics also promotes their spelling skills. The National Reading Panel concludes "that systematic phonics instruction produces gains in . . . spelling, not only in the early grades of kindergarten and first grade, but also in the later grades of second through sixth, and among children having difficulty learning to read." (NRP, 2000, p. 2–122)

Teachers assume reading instruction in grades three through five focuses on building vocabulary and making meaning of text. However, some students need continued foundational skills instruction to achieve fluency during this time. This instruction is not only identified and required through the standards, it is vital for all students to continue to practice core skills to become capable readers.

As the texts students encounter increase in complexity, returning to the core skills of phonics and word recognition helps students feel confident when they come to a challenging word or phrase because they have strategies to work through it. The standards call for this approach, and quality materials aligned to those standards continue to support foundational skills throughout elementary school.

Stephens (2022), in a blog from EdReports notes, "Students who do not have consistent foundational skills development *for the full duration* of elementary school will likely face challenges with literacy."

Research Design

The action research project analyzes different word study programs in third and fourth grade classrooms at three district elementary schools, Greenland, Meadow View, and Park Lawn. Four third grade classrooms at Meadow View and three third grade classrooms at Park Lawn will fully implement the program *From Phonics to Reading*, which was previously reviewed in this proposal. At Greenland, 21 students will receive instruction fully aligned to *From Phonics to Reading*.

Many fourth grade teachers experienced frustration with Words Their Way and lack of student progress. As a result, the researchers decided to put together a systematic program pulling together lessons from a variety of resources for two fourth grade classrooms at Greenland, four fourth grade classrooms at Meadow View, and two fourth grade classrooms at Park Lawn. Two additional fourth grade classrooms at Park Lawn will continue with Words Their Way as a control group. The first seven weeks of this program, students learn the seven syllable types, which are essential in reading multisyllabic words. The remaining lessons focus on morphology of affixes and Greek and Latin roots, as outlined by Orton Gillingham Morphology Plus. The lessons teach strategies to enhance the higher level literacy skills of students with special emphasis on morphology for developing, decoding, encoding and vocabulary development. The program, referred to as Coach Created Word Study, is linked here for preview.
In addition, Grade 4 Coach Created Word Study helps students achieve phonics and word recognition skills that emphasize Wisconsin English Language Arts State Standard, Reading Foundational Skills 4.3, which states:

> "Know and apply grade-level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context."

A third group of fourth grade teachers from Park Lawn will continue teaching Words Their Way as a control group. The use of multiple programs will allow the researchers to compare the growth across the year. To see growth in fluency, data will be collected three times throughout the year using the district fluency screener from FastBridge Learning, Curriculum Based Measure of Reading (CBMR).

All information related to this proposal and research project will be entered and organized in this spreadsheet.

Budget

Principals at Greenland, Meadow View, and Park Lawn provided monies to purchase *From Phonics to Reading* student books and teacher manuals.
Greenland: $961.53 (43 *From Phonics to Reading* student books and six teacher manuals)
Meadow View: $1,169.00 (90 *From Phonics to Reading* student books and four teacher manuals)
Park Lawn: $1,169.63 (65 *From Phonics to Reading* student books and three teacher manuals)

The three researchers request $1600.00 each for a total of $4,800 for this Learners and Leaders proposal. The research will span the entire 2022-2023 school year, and will require time for collecting, evaluating, and reviewing data. In addition, time will be spent creating, organizing, implementing, and coaching teachers through the Coach Created Word Study program.
A request is also being made to provide each of the 19 classroom teachers who are implementing one of the three programs outlined in this proposal, a $50.00 stipend for a total cost of $950. The stipend is recognition for their support of the research. Teachers will also be asked to log their weekly lessons to provide fidelity of instruction throughout the school year.

Results

When reviewing the FAST CBMR norms, a student's growth percentile will remain the same across the academic year if they demonstrate a growth rate of 1.07 words a week. Teachers' logs of Coach Created Word Study instruction show an average of 25 weeks of instruction. Using the rate of growth listed in FAST CBMR norms, and applying it to our teachers' average weeks of implementation of the word study program, students receiving Coach Created Word Study instruction would be expected to grow 27 words per minute across the 25 weeks of instruction in order to maintain their growth percentile throughout instruction (25 weeks of instruction multiplied by 1.07 words per week of growth equal 27 words per minute growth across 25 weeks of instruction). Therefore, it was determined that a growth of 27 wpm in CBMR from fall to spring would be seen as adequate progress because a student's growth percentile would remain consistent throughout the 25 weeks of instruction.

Below (Figure 1.1) is a table that indicates the percentage of students that did, and did not meet expected growth of 1.07 words per week in each of the three curriculum options presented in this proposal.

Figure 1.1

Student Group	Grade Level	Program Used	Did Not Meet Growth	Met Growth
Group A Control Group	Grade 4	Word Their Way	34.2% (13/38)	65.8% (25/38)
Group C	Grade 4	Coach Created Word Study	43.3% (78/180)	56.7% (102/180)
Group B	Grade 3	From Phonics to Reading	32.7% (54/165)	67.2% (111/165)

Conclusions

When reviewing our data we realized that our control group, Words Their Way, showed comparable growth to the From Phonics to Reading group, though they were two different grade levels. The Coach Created Word Study program did not demonstrate as much growth as the other two programs. However, on reflection we are wondering the following:

- Would results have been more favorable if we continue to refine and build this program each year?
- Do we need an additional measure other than CBMR? CBMR measures WPM and we focused on morphology to help with understanding and decoding multisyllabic words. Would a different assessment tool have shown more growth specific to word study?
- One of our goals of this proposal was to expose all students to morphology instruction in order to help read and write multisyllabic words. In Words Their Way, many students never reached the Derivational Stage of word study where morphology was introduced.
- Another wondering, was adequate time given to the teaching of the Coach Created Word

Study as the fourth grade curriculum allows for only 10 minutes of word study each day, and even this limited time is often overlooked for some other need in the classroom.

- Implementing, reacting to, and evaluating the Coach Created Word Study curriculum demanded a lot of the teachers involved. It is hoped that if the district continues with morphology word study, it will be seen as continued learning, rather than new learning because of this year's experience.
- Another benefit to Coach Created Word Study was the authentic learning of word parts through a strategy called, Word Sums. Word Sums helped students to understand the meaning of words through the study of word parts (morphemes).

An exit survey was given to all participating teachers, and 94.7% (18/19) teachers completed the survey. Overall, *From Phonics to Reading* and the Coach Created Word Study provided higher student engagement and carryover into writing and reading. Even though the data in numbers show average growth in fluency on the CBMR from fall to spring, 83% of teachers felt that the Coach Created Word Study had a direct impact on student fluency. All participates responding to the survey, felt the following about Coach Created Word Study:

- Better understanding of words, their meaning, and how to tackle multisyllabic words in isolation and/or in their reading.
    - A teacher quote from the survey states, "I've noticed my student using strategies we've discussed (unprompted) to break down multisyllabic words in other areas throughout the day."
- The focus of the word work addressed student needs in the classroom.
    - A teacher quote from the survey states, "I feel that students are learning a lot more, retaining the learning, and it is transferring over to their reading and writing. Since this is new to them this year, I can't wait to see how future students will do as they will be taught this in the earlier grades."
- Word work was built on previous sessions and was systematic in nature.
    - A teacher quote from the survey states, "Each lesson or set of prefixes or suffixes followed a certain pattern and the lessons and procedure were consistent and routine."
- 17 of the 18 participants wanted to continue the program that they were using.
    - A teacher quote from the survey states this about *From Phonics to Reading*, "I feel that in my 14 years of teaching this is the best program I have found to teach phonics. I am being honest that I learned some new rules that I did not know! The program was super user friendly and my students were successful! Their test scores and carry over show this! I loved the hands-on manipulation of words and word parts each week to build new words as well as the texts that students could read that had the skills being taught each week! Everything I needed was right there I didn't need to search for resources."
    - A teacher quote from the survey states this about *From Phonics to Reading*, "I truly feel very passionate about this curriculum for Phonics! I truly believe it met all of my students' needs and really helped them to understand each week the skills being taught. It was hands on, engaging and had a good home component as

well. It is the best I have used with the most success!"

- A teacher quote from the survey states this about Coach Created Word Study, "I thank all the reading specialists that put this together for us. We took a chance in trying it, but the benefits are great. It was nice to see the growth in learning and increase in motivation of students."

Future of Word Study in Oconomowoc

We are excited that third grade universally will be implementing *From Phonics to Reading* as a result of the Literacy plan of work for 2022-2023. We believe the teachers that implemented *From Phonics to Reading* this year only began to scratch the surface of all that this phonics curriculum offers. The teachers that used the curriculum this year were passionate about continuing its use in the future. The researchers look forward to continuing to learn and coach into the fidelity of phonics instruction in third grade using *From Phonics to Reading*.

We believe that some type of systematic and sequential morphology instruction needs to be universally implemented in fourth grade. If the Coach Created Word Work pilot is going to be utilized for the 2023-2024 school year, we will want to continue to refine the design, implementation, and delivery based on teacher feedback received through the teacher exit survey.

We will also continue to investigate the effect that both *From Phonics to Reading* and the Coach Created Word Work had on the following District Key Performance Objectives once the Wisconsin Forward Exam results are revealed as it relates to both third and fourth graders who participated in the pilot.

1. The percentage of students in grades 3-8 scoring 'Proficient' and 'Advanced' on the Wisconsin Forward Exam in Reading and Math will continue to increase annually until OASD is among the top three school districts in Waukesha County at each grade level.
2. The proficiency level of student groups (gender, poverty, English language learners, disability, and minority) will increase each year on the Wisconsin Forward Exam and ACT exam in Reading and Math until their performance matches the overall test population.

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What is the impact of implementing fluency instructional routines in 5th and 6th grade English/Language Arts classrooms?

Learners and Leaders

Oconomowoc Area School District

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Abstract

This paper describes the outcome of an action research project that investigated the impact of implementing fluency instructional routines in 5th and 6th grade English/Language Arts classrooms. The research that guided this study examined best practices in fluency instruction and assessment, and the impact of fluency instruction in the secondary classroom setting. The overview of the research concluded with a specific instructional routine and student partnership strategy that centers around using the classwide median as a starting point to determine the need for intervention and create mixed group dyads based on baseline data. The purpose of this research was to determine if fluency instructional routines would impact older readers in a middle school setting. Using a variety of assessment sources, data compiled from the study identifies the positive correlation between the implementation of fluency instructional routines on multiple measures of reading achievement in secondary classrooms, including: oral reading fluency, prosody and comprehension, as well as, its impact on student engagement in reading.

Introduction

Much research has been conducted on the positive correlation between students' reading fluency and their reading comprehension skills (Daane, Campbell, Grigg, Goodman, & Oranje, 2005) and reading engagement (Morrow & Ashbury, 2003). "Students who read slowly often fail to complete their work, lose interest in school, and seldom read for pleasure." (Moats, 2001). Fluency is one of several necessary skills contributing to reading comprehension. (National Reading Panel, 2000). Considered one of the five pillars of effective reading instruction, fluency instruction and opportunities for students to engage in practice have been limited at the secondary level. However, there is a growing analysis of research indicating that fluency concerns limit student reading proficiency beyond the primary grades. (Paige, Rasinski, & Magpuri-Lavell, 2012; Paige, Rasinski, Magpuri-Lavell & Smith, 2014; Rasinski, Rikli, & Johnston, 2009). Additionally, the evidence also supports the correlation between building students' ability to read accurately, with automaticity and appropriate

expression (reading fluency) and its impact on improving students' silent reading comprehension. (Daane, Campbell, Grigg, Goodman, & Oranje, 2005). Finally, effective fluency instructional routines also increase student motivation and engagement in reading, overall. (Morrow & Ashbury, 2003).

As a school district, our mission is to empower a community of leaders and learners. In order to accomplish this, it is critical to empower and engage our *readers* as learners. Regardless of a specific content area, as texts students encounter become more complex, middle school readers need opportunities to continue building their reading fluency skills. Additionally, it is a skill that research suggests is critical to another one of our district's commitments, to prepare students for career and college readiness. This study will align with the district's goals of improving overall reading achievement as measured by the WI State Forward Exam and will contribute to the overall goal of increasing the percentage of students receiving a score of proficient or advanced on that assessment. The results of this action research will investigate how implementing fluency instructional routines at the middle school level will impact multiple measures of reading growth and achievement.

Literature Review

Reading Fluency

Reading fluency is a multidimensional skill - an essential component of learning to read. Often thought of as the bridge between word decoding and comprehension, fluency includes three elements: accuracy in word decoding, quick and automatic recognition of words in connected text, and prosody (expressive interpretation of the words being read). All three of these are critical for the achievement of reading comprehension.

Automatic Word Recognition

Skilled readers recognize the majority of the words they read accurately and effortlessly. Similar to other cognitive tasks, individuals have a limited amount of attention while reading. (Adams, 2011; Samuels, 2004). The ability for students to develop automaticity in word recognition is critical because it impacts the cognitive load

students have available to the most important and purposeful task of reading - comprehension of the text. The more that readers struggle to automatically decode words they read accurately, the more likely it is that comprehension is negatively impacted. It is critical to understand that the instruction around fluency must include attention to increasing students' automaticity. Attention spent by readers on word recognition is less attention that is available for comprehension. The theory of automaticity in reading suggests that proficient word decoding occurs when readers move beyond conscious, accurate decoding to automatic, accurate decoding (LaBerge & Samuels, 1974; Samuels, 2002, Stanovich, 1991). This type of processing frees the reader's attention to construct meaning of the text.

Prosody in Reading Fluency

Another critical component of reading fluency that is sometimes overlooked in studies related to fluency instruction, is prosodic reading. (Rasinski, 2006). Prosodic reading is defined as the ability to read expressively, and is a linguistic term related to the melodic elements of reading. When readers engage in elements of language including: intonation, tempo, and appropriate phrasing, their oral reading will sound similar to fluent speech. Readers that have the ability to read with prosody (expression) demonstrate a more commonly invisible skill - that of reading comprehension. The ability to determine appropriate elements of prosody needed to read with expression demonstrates a deeper understanding of the text. Prosody forms the cognitive framework that is necessary for reading comprehension (Frayser, Carlton, & Clifton, 2006).

Fluency in Middle School and Secondary Readers

Reading is a complex process beginning in early elementary school when students begin to connect language comprehension with concepts of the alphabetic principle. As students continue to advance through the phonological awareness continuum, phonics instruction begins to offer students explicit instruction and repeated practice of vowels and patterns in a systematic scope and sequence to decode words, allowing them to "crack the code" of written language through the reading process. Once decoding and foundational skills are solid, students work through the remaining

pillars of effective reading instruction (National Reading Panel, 2001) to skills that become more complex: fluency, vocabulary, and comprehension.

One study found moderately strong correlations between fluency and silent reading comprehension as measured by a standardized achievement test in third-, fifth-, and seventh- grade students. These findings suggest that reading fluency appears to be a significant variable in upper elementary and middle grade students' reading. Additionally, the evidence suggests that prosody is an important component in the full manifestation of reading fluency. The study showed that fluency correlated with silent reading comprehension at grades 5 and 7, further supporting the notion that fluency continues to be significant beyond the primary grades. Furthermore, results from this study suggest that fluency development may become stagnant in the middle grades. The mean fluency score for the seventh-grade cohort was below that of the fifth-grade cohort. "At all three grade levels prosodic reading was significantly associated with silent reading comprehension. Students who read with greater prosody in oral reading tended to have higher levels of comprehension when reading silently. As a result, the mean fluency score dropped between grades 5 and 7 while the standard deviation increased, suggesting that overall prosody in reading regressed and the result was a wider spread in prosodic reading as students progress through the upper elementary and middle grades." (Rasinski, Rikli, Johnston, 2006).

While fluency is crucial in the elementary grades, as students move through middle level and secondary literacy, texts become increasingly more complex, and the increased need for corresponding fluency instruction is evident. If the goal of reading instruction is proficient reading comprehension, then reading fluency, including automatic word decoding and prosodic, or expressive reading, need to be part of the instructional practices of teachers and students, particularly our most striving readers. (Allington, 2000).

Fluency Instruction

There are four basic components of effective fluency instruction. (Kuhn, Rasinski, Young, 2019). First, students need the opportunity to listen to a skilled reader model fluent reading for them. This modeling helps readers to better understand what their

reading should sound like. This is especially important for readers who struggle with reading in phrases. The second thing students need in fluency instruction is support as they read aloud. This could be in the form of echo or choral reading with a group, paired with a partner, or reading while listening to a recording of the text. This step provides yet another opportunity of modeling for the reader. Next, students need to focus their attention on meaning by attending to the text to read intentionally for meaningful phrasing. This focus helps them to move beyond word by word reading into more smooth, meaningful expression that is representative of oral language. Finally, students need to be provided with ample opportunities to read. Similar to most skills, students become better at reading with the opportunity for practice. (Allington, 2009; Samuels, 2006).

Fluency Assessment

Historically, fluency instruction and assessment have largely revolved around only one of the components of fluency - word reading, or speed. This has led to an unintended consequence - readers who think that proficient reading is little more than reading fast. (Rasinski, 2006). While the ability for students to develop automaticity in word recognition is critical because it impacts the cognitive load students have available to comprehend the text, prosodic assessment in fluency offers an important representation of a students' ability to make meaning of the text they are reading.

Assessments must attend to all three aspects of reading fluency - speed, accuracy and prosody. They must be quick and easy to allow teachers to gauge progress and maximize instructional and practice time. In order to best assess the decoding accuracy component of fluency, reading rate is calculated using the CBM (curriculum based measurement) in reading, which is also known as the Oral Reading Fluency (ORF) assessment. The CBM requires the reader to read grade-level text orally. It takes 60 seconds to administer, and during this period of time, the teacher administering the test marks the reader's uncorrected errors. Then, the total number of words read correctly is calculated as the WCPM (Words Correct Per Minute). A CBM/ORF assessment that includes both accuracy and rate allows teachers to get a quick but valid snapshot of their students' reading performance. This allows teachers to

better target individual students' instructional needs. When assessing prosody, the use of a multidimensional fluency rubric (Zutell and Rasinski, 1991) provides teachers with a qualitative measure of a student's interpretive oral reading skills. They provide teachers with a reliable and valid measurement of a student's skills and potential next steps for instruction. Additionally, they can provide a greater metacognitive awareness in students' own ability to interpret text orally.

Closing

There are many important factors to consider regarding fluency assessment and instruction. The correlation between reading fluency and reading comprehension is important to consider beyond the primary grades. Our study, grounded by the research on best practices in fluency instruction and assessment, will investigate the impact of implementing fluency instructional routines into secondary classrooms. This study will investigate the impact of implementing FORI on the following:

1. What is the impact on ORF (oral reading fluency?)
2. What is the impact on student comprehension?
3. What is the impact on student engagement?
4. What is the impact on prosody?
5. How do each of these measures of achievement compare when looking at struggling readers vs. typically developing readers?

Research Design

Study Design

Action research is a method of learning that investigates a theory related to an instructional practice or pedagogy through a disciplined inquiry process to come to a conclusion on that theory or practice. As a reading teacher, I have been interested in investigating the potential impact of variability in reading fluency on the reading comprehension and engagement of older readers. This study will investigate the potential impacts of implementing fluency instructional routines into 5th and 6th grade

ELA classrooms. Further, it will compare the impact of implementing fluency instructional routines on typically developing readers to striving grade level readers.

Participants and Setting

This research study took place in two different grade levels within the same intermediate school. The study was conducted in two fifth grade classrooms and three sixth grade classrooms. Each classroom was a co-taught, fully inclusive environment, and the total number of students in each class ranged from 20-25 students. Research procedures, including assessment and instruction, were implemented collaboratively by the classroom teachers, special education teachers, and the literacy coach.

Data Collection

To answer our research questions, we designed and executed instruction for 6 weeks in 5th grade and 7 weeks in 6th grade. For each set of weekly lessons, we implemented the FORI (Fluency Oriented Reading Instruction) method (Kuhn, 2020) (Original: Stahl & Heubach, 2005). We combined this with the Fluency Instructional Practice of Partner Reading (Burns, et al., 2015)

FORI Instructional Method (Kuhn, 2020) (Original: Stahl & Heubach, 2005).

Day 1: Teacher models pre-reading activities (attending to vocabulary and building background knowledge), then reads the selection to the class .

Day 2: Teacher and students echo-read the selection.

Day 3: Teacher and students choral read the selection.

Day 4: Partner reading, utilizing partnership structure below (Burns, et al., 2015) If time allows, reread a second time.

Day 5: Post-reading extension activities, asking students to summarize, write or respond to their reading - assess comprehension.

Fluency Instructional Practice 1: Partner Reading (Burns, et al., 2015)

1. Organize students into pairs by ordering them from highest score to lowest, according to ORF (Oral Reading Fluency) by finding the median score, and then

matching the top reader in the upper half of the group with the top reader in the lower half of the group. Continue down the list until you have mixed ability dyads.

2. These partner dyads meet for the partner reading practice (Day 4) of the FORI instructional method, with the higher reading partner starting, using the echo repeated reading practice strategy.

Results

The results of this study have provided us with important information about the effect of fluency instruction on multiple measures of reading achievement in our middle school classrooms. Further, it will help to guide future research and implementation of the use of additional screening measures of reading achievement (CBMr) to determine the need for classwide and/or small group fluency intervention and instruction at the secondary level.

Data Collection Instruments

- Pre/Post test measures of ORF (using a grade level passage according to College/Career Readiness Lexile Ranges)
- Pre/Post test measures of comprehension (using a grade level passage according to CCR Lexile Ranges)
- Pre/Post test measures of prosody, based on a Multi-Dimensional Fluency Scoring Guide
- Post test measures of student engagement through a survey

Data Analysis

What is the impact on ORF (oral reading fluency)?

In order to determine impact on oral reading fluency (ORF), we utilized the Hasbrouck and Tindal Benchmark Norms. Since our study began in January, we used the Winter-Spring growth percentiles as indicators of growth for students. The winter to spring benchmarks would represent approximately 12 weeks of growth for students. These goals were differentiated for students based on their initial placement of percentile within the chart. (See Appendix). During the 6 weeks of instruction for 5th graders, 16/38 students, or 42.1% met or exceeded their Spring benchmark goal. Meanwhile, an additional 7 students were on track to meet their goal, which increased the total number of students who were on track to meet or exceed their Spring benchmark to 23/38, or 60.5% of students. During the 7 weeks of instruction for 6th grade students, 28/46, or 60.9% of students met or exceeded their Spring benchmark goal. Additionally, 2 students were on track to meet their Spring benchmark. As a result, this brought the total up to 30/46 students were on track to meet or exceed their Spring benchmark to 65.2% of total students.

What is the impact on student comprehension?

We utilized pre- and post-test comprehension stores to measure student growth across this study. We administered a grade level Lexile passage reading, based on the College and Career Readiness Lexile ranges for 5th and 6th grade, respectively. Each passage contained comprehension and vocabulary questions, following the reading. For this study, we found that the number of students in both 5th and 6th grade who had 2 or more incorrect in the pre-test, improved during the post test. For 5th grade students, the number of students who had 2 or more items incorrect, dropped from 36.8% of students down to 7.8% of students. For 6th grade students, the drop was 60% on the pretest to 37% on the post-test. In conclusion, the number of 5th and 6th grade students that had 2 or more incorrect answers dropped about 30% from the pre-post test, following the implementation of fluency instructional routines.

What is the impact on prosody?

Prosody was the final area measured through the pre- and post-tests. We used the Multidimensional Fluency Scale to analyze student prosody while reading the grade level passage. Within the scale, students earn a total of up to 16 possible points, 4 points each in the following areas: Expression and Volume, Phrasing, Smoothness and Pace. (See Figure 1). The impact on prosody was the area where the majority of students at all skill levels demonstrated growth across the period of the fluency instruction. 76.3% of 5th grade students grew 1 or more points on the fluency scale, while 63.2% grew 2 or more points. It is important to note that two of the students that didn't show growth on the fluency scale had already reached the maximum of 16 points in the pre-test. The impact was also significant on the 6th grade students, where 65.2% of students grew 1 or more points on the scale, while 48% grew 2 or more points. Furthermore, the number of 6th grade students who started the instruction at 100% of the possible points was more significant, at 8, or 17.4% of the total students that participated in the study.

Figure 1 *Multidimensional Fluency Scale*

NAME _____

FLUENCY RUBRIC

	1	2	3	4
Expression and Volume	Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend.	Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend.	Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend.	Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage.
Phrasing	Reads word-by-word in a monotone voice.	Reads in two or three word phrases, not adhering to punctuation, stress and intonation.	Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation.	Reads with good phrasing; adhering to punctuation, stress and intonation.
Smoothness	Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage.	Reads with extended pauses or hesitations. The reader has many "rough spots."	Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures.	Reads smoothly with some breaks, but self-corrects with difficult words and/ or sentence structures.
Pace	Reads slowly and laboriously.	Reads moderately slowly.	Reads fast and slow throughout reading.	Reads at a conversational pace throughout the reading.

Scores of 10 or more indicate that the student is making good progress in fluency. Score _____

Scores below 10 indicate that the student needs additional instruction in fluency.

Rubric modified from Tim Rasinski – Creating Fluent Readers

How do each of these measures of achievement compare when looking at struggling readers vs. typically developing readers?

We used the MAPS (Measures of Academic Progress) screening assessment to analyze the impact of the fluency instruction across the population of students based on skill level. We split students up by their percentile scores, grouping together students at or below the 40th percentile, 41st-60th percentile, 61st-79th percentile, and 80th percentile and above. We then compared the groups of students on measures of ORF and comprehension, as measured by pre- and post-test growth. We saw the highest amount of impact in prosody and comprehension in students below the 40th percentile in both 5th and 6th grade. Out of the 6 total students at or below the 40th percentile on MAPS in 5th grade, 5/6, or 83% or them grew in their prosody, as measured by the multi-dimensional fluency scale. Additionally, 4/6, or 67% of students improved on their comprehension, as measured by the pre- and post-test. The average of correct item responses in 5th grade students below the 40th percentile on MAPS increased from an overall average of 55.5% to 83% correct. Moreover, when looking at the 6th grade students scoring at or below the 40th percentile on MAPS, 100% of students grew in their prosody, as measured by the multidimensional fluency scale. In regards to comprehension, 4/11 students, or 36% improved the items correct from the pre-post test on comprehension. The overall average of correct item responses in 6th graders below the 40th percentile on MAPS increased from 53.6% to 60.5% of items correct.

During the course of our 6-7 weeks of fluency instruction, students in all skill levels grew on comprehension, as measured by the average percentage of correct items increasing from the pre-post tests. (Figure 2)

Figure 2 *Student Group Growth Analysis: Reading Comprehension*

	MAP ≤40th percentile	MAP 41st-60th percentile	MAP 61st-79th percentile	MAP ≥80th percentile
5th Grade	55.5% - 83%	81.7% - 86.6%	83.3% - 90.5%	86% - 88.6%
Pre-Post Test Growth	+27.5%	+4.9%	+7.2%	+2.6%
6th Grade	53.6% - 60.5%	67.7% - 83.9%	80.1% to 90.5%	88.7% - 93.9%
Pre-Post Test Growth	+6.9%	+16.2%	+10.4%	+5.2%

What is the impact on student engagement?

Student engagement was measured using a post-instruction survey, where students were asked to reflect on their fluency learning experience. As shown in Figure 3.1, all students reported an engagement and participation at an “always” or “sometimes” level during the period of fluency instructional routines in their classrooms. No students reported being disengaged throughout the instruction, or a “never” response. Additionally, students reported the practice activities that they were most engaged in. Figure 3.2 represents the highest percentage of students who enjoyed the fluency-based performance activities, including activities, such as: reader’s theater and reading like a sportscaster. These authentic opportunities for students to practice with a purpose were meaningful and impactful on student engagement. Furthermore, students were engaged in the partner reading strategy, in which they were paired up with a partner based on the classwide median procedure. This resulted in strong partnerships throughout all five sections of classes in the study, suggesting that this method of pairing students is highly successful and engaging for students in fluency practice. Additionally, out of 96 total responses, 59 students (61.4%) responded by correctly stating the three elements of their reading fluency (accuracy, rate, and prosody) in a short answer response item. This demonstrates the impact of this learning on their understanding of this critical aspect of their reading achievement. Finally, students were

given the opportunity to share the impact of the fluency instruction on their reading lives. A collection of their anecdotal comments are referenced in Figure 3.3 below.

Figure 3.1 *Student Responses from Survey Question: Were you participating and trying your best in the fluency learning each day?*

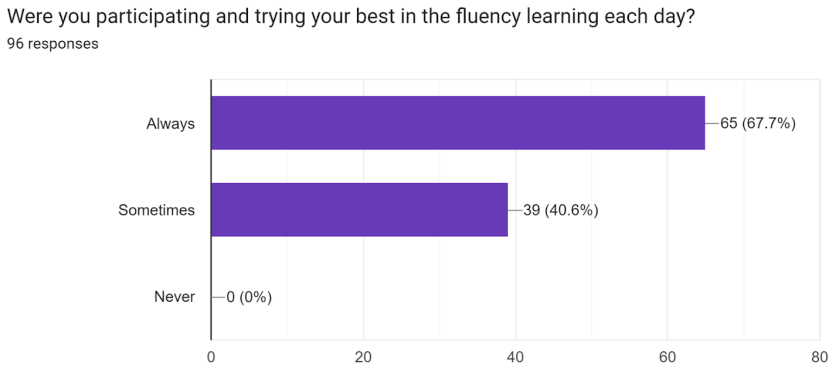

Figure 3.2 *Student Responses from Survey Question: Which of the fluency activities did you enjoy the most?*

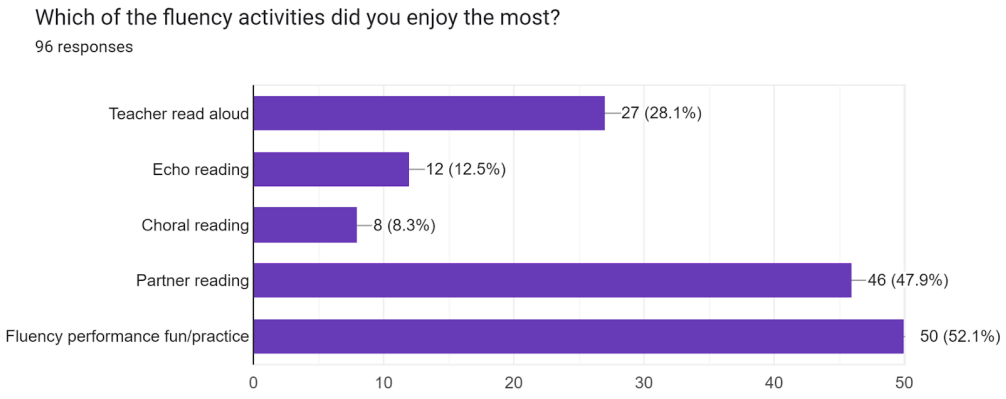

Figure 3.3 *Student Responses from Survey Question: How has this fluency work affected you as a reader?*

It has made me slow down when I am reading.	its goten me to want to read more

I have better prosidy when I read.	It makes me so I notice when I make more mistakes and i fix them.
it works because it helps you stop and reread and read at a nice speed	it has affected me because it made my reading mor precise
I helped me read better and my expression when I am reading.	It has and if I dont read with the 3 components of fluncey I remind myself that I need to be doing that.
I have became better with reading out loud and reading specifically.	I do have of a bit better fluent reading voice but I think fluency is something that I haven't really struggled with in the past.
It has helped me read slower when I find tricky words.	it made me learn that i have to try to understand and not just read at a million miles an hour
I help me read more smoothly and read with expresion.	I feel that I have grown more as a reader, and can read, and understand what the text says.
I have a lot more expression in my voice now.	it affected me in a good way because I can read better with a groupt better speed.
It has helped me maintain the same pace when reading and it has helped me not zone out.	Coming into this I wasn't good at remebering to read the little words like a and it, I sort of skiped over them. But with the reading with partners on Friday really helped.
better at reading acaurcy	It has made me slow down a little and pay more attention.
It helped me with prosiy/experition	I can read smoother and faster.
it has made me more mindful of reading.	I have been to read more complex texts and my vocab has dramatically changed.
It has made me more confident as a reader when speaking out loud	Over the past few months working on fluency it had helped be understand my reading more and it has me more focused in my book.
It makes me improve my vocab and ability	It helped me a lot because I can see the

to read texts with prosody, speed, and accuracy	progress that I have made.
It made my reading less choppy.	It has made me more aware if I am reading something wrong or right, makes me rethink meanings of words that I thought I know.
Helped me work on my rate as a reader by finding a good rate to read.	The fluency work helped me have a better vocabulary.
when reading it I am not just reading it to read it.	I read with more of an expression and I read louder.
It has helped me to read with more expression and have less errors.	Our fluency work affected me positively because when I am reading I make sure the words make sense and that I am reading at a good pace.
Fluency helped me with the smoothness of my voice, the pace I read in, and the voice level I attend while I'm reading.	
So I can read more clearly and get more words right than wrong.	It has made me slow down a little and pay more attention.
Fluency has affected me in a good way because it makes me speak and read more smoothly/fluently.	I can read smoother and faster.
Both because it's not my favorite thing to do but I earn some really good skills from it.	I have been to read more complex texts and my vocab has dramatically changed.
I helps me with my reading stamina.	Over the past few months working on fluency it had helped be understand my reading more and it has me more focused in my book.
its goten me to want to read more	It helped me a lot because I can see the progress that I have made.
It makes me so I notice when I make more mistakes and i fix them.	It has made me more aware if I am reading something wrong or right, makes me rethink meanings of words that I thought I know.

it has affected me because it made my reading mor precise	The fluency work helped me have a better vocabulary.
It has and if I dont read with the 3 components of fluncey I remind myself that I need to be doing that.	I read with more of an expression and I read louder.
I do have of a bit better fluent reading voice but I think fluency is something that I haven't really struggled with in the past.	Our fluency work affected me positively because when I am reading I make sure the words make sense and that I am reading at a good pace.
it made me learn that i have to try to understand and not just read at a million miles an hour	it affected me in a good way because I can read better with a groupt better speed.
I feel that I have grown more as a reader, and can read, and understand what the text says.	Coming into this I wasn't good at remebering to read the little words like a and it, I sort of skiped over them. But with the reading with partners on Friday really helped.

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Appendix: Data Tables

ORF Growth based on Hasbrouck & Tindal Fluency Norms (2017): 5th Grade

KEY:

Red = 1st-10th percentile (less than or equal to 84 WCPM pre-)

Yellow = 11th-25th percentile (85-109 WCPM pre-)

Orange = 26th-50th percentile (110-133 WCPM pre-)

Green = 51st-75th percentile (134-160 WCPM pre-)

Blue = 76th-100th percentile (greater than or equal to 161 WCPM pre-)

WCPM (Pre)	WCPM (Post)	Expected Growth Winter - Spring	Actual Growth	Expected to Actual Growth
96	121	10	25	15
98	93	10	-5	-15
108	143	10	35	25
111	123	13	12	-1
119	130	13	11	-2
119	133	13	14	1
124	154	13	30	17
125	127	13	2	-11
127	149	13	22	9
132	128	13	-4	-17
132	156	13	24	11
132	112	13	-20	-33
134	148	9	14	5
135	141	9	6	-3
136	171	9	35	26
137	158	9	21	12
137	164	9	27	18
142	163	9	21	12
142	149	9	7	-2

ORF Growth based on Hasbrouck & Tindal Fluency Norms (2017): 5th Grade (cont'd)				
WCPM (Pre)	**WCPM (Post)**	**Expected Growth Winter - Spring**	**Actual Growth**	**Expected to Actual Growth**
143	183	9	40	31
146	133	9	-13	-22
147	130	9	-17	-26
150	169	9	19	10
153	172	9	19	10
153	160	9	7	-2
163	174	12	11	-1
165	166	12	1	-11
170	161	12	-9	-21
172	175	12	3	-9
172	180	12	8	-4
173	188	12	15	3
178	199	12	21	9
180	180	12	0	-12
187	190	12	3	-9
188	190	12	2	-10
201	209	12	8	-4
220	213	12	-7	-19
235	236	12	1	-11

ORF Growth based on Hasbrouck & Tindal Fluency Norms (2017): 6th Grade

KEY:

Red =1st-10th percentile (less than or equal to 91 WCPM pre-)

Yellow = 11th-25th percentile (92-116 WCPM pre-)

Orange = 26th-50th percentile (117-145 WCPM pre-)

Green = 51st-75th percentile (146-166 WCPM pre-)

Blue = 76th-100th percentile (greater than or equal to 167 WCPM pre-)

WCPM (Pre)	WCPM (Post)	Expected Growth Winter - Spring	Actual Growth	Expected to Actual Growth
36	59	0	23	23
79	93	0	14	14
96	103	6	7	1
97	133	6	36	30
102	129	6	27	21
105	95	6	-10	-16
106	116	6	10	4
109	167	6	58	52
111	169	6	58	52
113	144	6	31	25
116	131	6	15	9
116	102	6	-14	-20
118	136	1	18	17
121	156	1	35	34
121	164	1	43	42
122	145	1	23	22
123	125	1	2	1
125	125	1	0	-1
128	166	1	38	37
129	129	1	0	-1

ORF Growth based on Hasbrouck & Tindal Fluency Norms (2017): 6th Grade (cont'd)				
WCPM (Pre)	**WCPM (Post)**	**Expected Growth Winter - Spring**	**Actual Growth**	**Expected to Actual Growth**
131	175	1	44	43
133	126	1	-7	-8
135	185	1	50	49
142	133	1	-9	-10
144	151	1	7	6
147	174	7	27	20
150	163	7	13	6
151	160	7	9	2
156	173	7	17	10
158	136	7	-22	-29
160	178	7	18	11
161	173	7	12	5
161	206	7	45	38
162	167	7	5	-2
163	186	7	23	16
168	135	9	-33	-42
172	174	9	2	-7
182	172	9	-10	-19
182	189	9	7	-2
185	188	9	3	-6
191	171	9	-20	-29
196	207	9	11	2
200	186	9	-14	-23
203	202	9	-1	-10
211	181	9	-30	-39

229	200	9	-29	-38

Prosody Growth on Multidimensional Fluency Scale (MDFS): 5th Grade

MDFS (Pre)	MDFS (Post)	Growth
12	10	-2
7	7	0
10	10	0
12	12	0
10	10	0
14	14	0
16	16	0
16	16	0
15	15	0
7	8	1
9	10	1
14	15	1
15	16	1
14.5	16	1.5
11	13	2
11	13	2
12	14	2
14	16	2
13	15	2
14	16	2
7.5	10	2.5
8.5	11	2.5
6	9	3
6	9	3

MDFS (Pre)	MDFS (Post)	Growth
11	14	3
12	15	3
12	15	3
12	15	3
12	15	3
8	12	4
8	12	4
11	15	4
9	14	5
7	12	5
8	13	5
10	15	5
10	16	6
8	15	7

Prosody Growth on Multidimensional Fluency Scale (MDFS): 6th Grade

MDFS (Pre)	MDFS (Post)	Growth
15		-15
11		-11
15	10	-5
10	10	0
10	10	0
14	14	0
16	16	0
16	16	0
16	16	0
15	15	0
16	16	0

MDFS (Pre)	MDFS (Post)	Growth
16	16	0
16	16	0
16	16	0
16	16	0
16	16	0
11.5	12	0.5
10.5	11	0.5
9	10	1
15	16	1
15	16	1
14	15	1
15	16	1
8	9.5	1.5
4	6	2
8	10	2
10	12	2
8	10	2
9	11	2
13	15	2
12	14	2
13	15	2
13.5	16	2.5
8	11	3
8	11	3
8	11	3
9	12	3
9	12	3
13	16	3

11	15	4
10	14	4
10	14	4
10	14	4
12	16	4
8	14	6
9	16	7

Comprehension Growth on Pre- Post Measure: 5th Grade

Comp % correct (Pre)	Comp % correct(Post)	Growth	Map %ile
67%	83%	16%	6
67%	83%	16%	22
83%	83%	0%	24
50%	83%	33%	33
50%	83%	33%	37
83%	83%	0%	40
100%	100%	0%	45
100%	100%	0%	45
67%	50%	-17%	45
100%	100%	0%	45
83%	83%	0%	50
50%	100%	50%	50
67%	67%	0%	50
67%	83%	16%	55
100%	100%	0%	55
83%	83%	0%	60
67%	100%	33%	62
100%	100%	0%	62
83%	100%	17%	62
67%	83%	16%	64
67%	83%	16%	67
83%	83%	0%	71
83%	83%	0%	71
100%	83%	-17%	71
100%	67%	-33%	71
100%	100%	0%	75
67%	83%	16%	75

Comprehension Growth on Pre- Post Measure: 5th Grade (cont'd)			
Comp % correct (Pre)	**Comp % correct(Post)**	**Growth**	**Map %ile**
100%	100%	0%	77
100%	100%	0%	77
83%	83%	0%	79
83%	100%	17%	79
50%	100%	50%	79
83%	83%	0%	83
100%	100%	0%	87
100%	100%	0%	88
83%	83%	0%	88
83%	83%	0%	94
67%	83%	16%	96

Comprehension Growth on Pre- Post Measure: 6th Grade

Comp % correct (Pre)	Comp % correct (Post)	Growth	MAP %
63%	50%	-13%	3
38%	88%	50%	5
50%	50%	0%	8
50%	50%	0%	10
25%	13%	-12%	12
38%	75%	37%	15
50%	63%	13%	23
63%	88%	25%	25
88%	88%	0%	34
50%	50%	0%	34
75%	50%	-25%	36

Comprehension Growth on Pre- Post Measure: 6th Grade (cont'd)			
Comp % correct (Pre)	**Comp % correct(Post)**	**Growth**	**MAP %**
75%	63%	-12%	41
50%	75%	25%	45
63%	88%	25%	48
50%	100%	50%	50
63%	63%	0%	53
75%	75%	0%	55
100%	100%	0%	58
38%	100%	62%	60
75%	100%	25%	60
88%	75%	-13%	60
63%	100%	37%	65
75%	100%	25%	65
63%	75%	12%	67
75%	88%	13%	70
75%	63%	-12%	72
88%	100%	12%	72
75%	100%	25%	72
88%	88%	0%	74
88%	75%	-13%	74
88%	100%	12%	74
88%	100%	12%	74
75%	88%	13%	76
100%	100%	0%	78
100%	88%	-12%	80
100%	100%	0%	80
100%	100%	0%	80

Comprehension Growth on Pre- Post Measure: 6th Grade (cont'd)			
100%	88%	-12%	81
63%	100%	37%	83
100%	88%	-12%	84
75%	100%	25%	86
88%	100%	12%	86
88%	100%	12%	87
75%	75%	0%	89
75%	88%	13%	90
100%	100%	0%	90