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Relationship between oral reading fluency and performance on the Ohio grade 7 reading achievement test

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Relationship between Oral Reading Fluency and
Performance on the Ohio Grade 7
Reading Achievement Test

Thesis

Submitted to

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UNIVERSITY OF DAYTON

In Partial Fulfillment of the Requirements for
The Degree
Educational Specialist in School Psychology

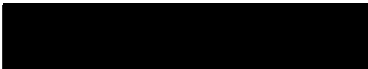
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ABSTRACT

RELATIONSHIP BETWEEN ORAL READING FLUENCY AND PERFORMANCE ON THE OHIO GRADE 7 READING ACHIEVEMENT TEST

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The purpose of this study was to investigate the relationship between oral reading fluency and performance on the Ohio Grade 7 Reading Achievement Test. The participants in this study were 75 seventh-grade students. One month before the students were administered the state test, each student read three probes from their current reading basal in order to obtain an oral reading fluency rate. A correlational design was used to determine if there was a relationship between the two measures. Results support the use of oral reading fluency assessment as a valid tool for progress monitoring in the seventh grade that would allow teachers to plan intervention strategies for students at risk of not passing the Ohio Grade 7 Reading Achievement Test.

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CHAPTER I

Introduction

In an effort to evaluate the effectiveness of reading instruction, The No Child Left Behind Act of 2001 requires school districts to show that they are having a positive impact on student learning (Ardoin et al., 2004). The belief that all children can learn and deserve the right to be educated in a way that ensures future literacy success is the basis for recent educational movements. For example, students in Grades 3-8 in Ohio are required to take achievement tests in science, social studies, math, reading, and writing that assess student learning of the Ohio Academic Content Standards (Ohio Department of Education, 2007a). In order to show academic competency, students must pass the achievement tests. Educators need tools to monitor student progress and make necessary instructional changes for students who are not making sufficient progress. This study will investigate the predictive validity of a Curriculum-Based Measurement (CBM) reading assessment in relation to performance on the Ohio Grade 7 Reading Achievement Test.

Previous research has shown CBM to be a valid measure of student reading skills (Madelaine & Wheldall, 1999; Shinn, Knutson, Collins, Good, & Tilly, 1992). Frequent administration of CBM across weeks, months, or an entire school year

monitors student academic progress to determine if instructional strategies are appropriate and effective.

"CBM has been identified by the U.S. Department of Education as an acceptable and valid measurement tool for identification and progress monitoring of students' reading difficulties" (Brown-Chidsey, Davis, & Maya, 2003, p. 374). Madelaine and Wheldall (1999) stated that CBM in reading is useful for progress monitoring, screening, referrals, and making instructional decisions. The time requirements for measuring oral reading fluency are brief, so frequent administration is an acceptable practice for teachers. In addition, teachers, psychologists, administrators, paraprofessionals, and students can record CBM data on easily read and managed charts and graphs. Therefore, the results are immediately available and interventions can be adjusted without delay (Hartman & Fuller, 1997).

Not only do CBM probes produce quantitative data, oral reading fluency measurement also generates qualitative information. When scoring reading probes, educators can make note of the type of decoding strategies used by the student. Probes also unveil student-reading processes such as scanning, pacing, and using context to make self-corrections (L. S. Fuchs, Fuchs, Hosp, & Jenkins 2001). Continuous information allows teachers to plan effective reading lessons that will lead to higher achievement (Davis & Fuchs, 1995).

Most importantly, students begin to take responsibility for their own learning with CBM. The clear and immediate results from CBM have a positive impact on students. As part of a survey conducted at the end of a study by Davis and Fuchs (1995), students

assessed using CBM set measurable future reading goals for themselves and stated reading successes were dependent on the amount of effort they put forth. Students can easily monitor or graph their own progress in classrooms using CBM. Self-monitoring allows students to reflect upon their own learning processes; therefore, they are able to set sequential goals that lead to increased academic performance (Shapiro, Durnan, Post, & Levinson, 2002).

The relationship between oral reading fluency and reading comprehension has garnered attention, as has the relationship between oral reading rates and state reading assessments. Research lends empirical support to the notion that CBM in reading is a valid tool for monitoring student reading progress (Brown-Chidsey et al., 2003; Madelaine & Wheldall, 1999; Shinn et al., 1992). Using oral reading fluency measures at various grade levels can serve as valuable formative assessment tools to guide instruction.

CHAPTER II

Literature Review

Oral Reading Fluency as an Indicator of Comprehension

Oral reading fluency is a blend of accuracy and rate. One of the most common methods for determining oral reading fluency rate is to have students read a passage aloud for 1 minute, and the number of words read correctly is counted and recorded. Oral reading fluency reflects a student's ability to effortlessly combine the following skills automatically: translating letters into sound, organizing phonemes into whole words, interpreting meaningful connections between sentences, and making inferences (L.S. Fuchs et al., 2001). Students struggling with word decoding are less likely to comprehend material because they are concentrating on the mechanics of the passage instead of the meaning (Madelaine & Wheldall, 1999; Shinn et al., 1992).

A number of studies demonstrated that oral reading fluency is a strong predictor of reading comprehension skills. The more fluently children read the better their comprehension of what they are reading (Shinn et al., 1992; Jenkins, Fuchs, Espin, Van Den Broek, & Deno, 2003). Shinn and colleagues (1992) completed a study to determine the strength of the correlation between oral reading fluency and reading comprehension as measured by the administration of the Stanford Diagnostic Reading Test Comprehension subtest. Participants in the study were 114 third-grade students and 124

fifth-grade students. Each student read two passages selected from the Harcourt-Brace-Jovanovich basal reading series, which the school district used.

Results from this study showed that oral reading fluency was a valid indicator of reading comprehension and proficiency. When comparing measurement outcomes for the third-grade students, oral reading fluency based upon two passages correlated highly with performance on the Stanford Diagnostic Reading Test Comprehension subtest ($r = .88$ and $r = .90$). In the fifth-grade portion of the study, oral reading correlated strongly with comprehension performance ($r = .73$ and $r = .76$).

Jenkins and colleagues (2003) explored the correlation among oral reading fluency, a word list, and the Reading Comprehension portion of the Iowa Test of Basic Skills (ITBS). The study sample included 113 fourth-grade students. Each student read a 400-word folktale aloud for 1 minute, read a list of randomly ordered words from the folktale aloud for 1 minute, and completed the Reading Comprehension portion of the ITBS. Results indicated a correlation of .83 between oral reading text fluency and the ITBS and a correlation of .53 between oral reading list fluency and the ITBS. Their findings indicate that text fluency appears to be more related to reading comprehension than list fluency (Jenkins et al., 2003).

Another study of oral reading fluency attempted to determine the importance of oral reading fluency at the high school level (Rasinski et al., 2005). A total of 303 ninth-grade students from an urban school district were participants in this study. All students read a ninth-grade level passage aloud for 1 minute in order to obtain an oral reading score. Thirteen students read above 193 words per minute, 114 students read between

146 and 192 words per minute, and 186 students read below 145 words per minute; the average oral reading fluency rate was 136.3 words per minute.

National norms have not been established for students in high school, so Rasinski and colleagues (2005) used the spring fluency norm for eighth grade, which is 171 words per minute at the 50th percentile. On average, the ninth-grade students in this study read 145 words per minute or less, which is about 80% of the expected eighth-grade norm. Furthermore, when given the high school graduation test, a moderately strong correlation of .53 existed between their performance on the graduation test and oral reading fluency (Rasinski et al., 2005).

Correlations between Oral Reading Fluency and State Assessments

Research supports the relationship between oral reading fluency and performance on state assessments. McGlinchey and Hixson (2004) designed a study to determine if data collected from the use of 1-minute oral reading samples could legitimately predict success on the Michigan Educational Assessment Program's (MEAP) fourth grade reading assessment. The MEAP includes an informational and a story passage with 20 multiple-choice comprehension questions for each passage.

This longitudinal study spanned a total of 8 years. For the first 5 years of the study, each student read a passage from the district's fourth grade basal for 1 minute 2 weeks prior to the MEAP. Due to an increase of trained personnel during the last 3 years of the study, students read three passages, and researchers used the median of these scores for data. Over the 8 years, 74% of the students who passed the MEAP were able to read at least 100 words per minute. Correlations between oral reading

fluency and performance on the MEAP ranged from .49 to .77 over the first 5 years of the study when only a single 1-minute probe was administered. During the final 3 years of the study using the median of three probes each year, correlations ranged between .65 to .81. An implication of this study is that teachers may want to use these data to create interventions to increase oral reading rates, therefore, increasing passage rates on the MEAP (McGlinchey & Hixon, 2004).

Buck and Torgeson (2003) conducted a study to determine if oral reading fluency was a valid and reliable predictor of performance on the reading section of the Florida Comprehensive Assessment Test – Sunshine State Standards (FCAT-SSS). The FCAT-SSS is a criterion-referenced test that measures state reading standards. On the FCAT-SSS, students receive a score in one of five levels. A Level 1 or 2 score is a failing score while a score in Level 3, 4, or 5 is a passing score. Each of the 1,102 third-grade students who participated in this study read passages from the Standard Reading Passages: Measures for Screening and Progress Monitoring from Children's Educational Services, Inc. aloud for 1 minute to obtain oral reading fluency scores. The median of the three scores served as the reading fluency data.

The results of this study indicated that there was a significant correlation of .70 between oral reading scores and performance on the reading portion of the FCAT-SSS. Ninety-one percent of the students who read at or above 110 words per minute scored at or above Level 3 on the FCAT-SSS reading section. Eighty-one percent of the students who read less than 80 words per minute scored at a Level 1 or 2 on the FCAT-SSS reading section. Another interesting finding was that students who scored between 80 to

109 words per minute were equally likely to score in the passing or failing range on the FCAT-SSS (Buck & Torgeson, 2003).

Barger (2003) demonstrated a strong correlation between oral reading fluency and high stakes testing in North Carolina. In this study, a group of 38 third-grade students read aloud three DIBELS Oral Reading Fluency probes for 1 minute. Their median score served as their oral reading fluency score. The students then participated in the 56-question North Carolina End of Grade reading test 1 week later. Test scores are organized into four levels: Level I represents insufficient mastery of the subject, Level II means inconsistent mastery, Level III means consistent mastery, and Level IV represents superior mastery. The correlation between oral reading scores and North Carolina End of Grade reading scores was .73. Twenty-six students scored 100 words per minute on the DIBELS oral reading fluency measure, and all of those students scored at least a Level III. Ninety-two percent of the students who read at least 110 words per minute scored at a Level IV. The correlation between the two measures was less clear when students read below 100 words per minute (Barger, 2003).

Vander Meer, Lentz, and Stollar (2005) examined the relationship between the end of the third and fourth grade oral reading fluency goals as compared to performance on the Ohio Fourth-Grade Proficiency Test. Oral reading fluency data were collected using 1-minute Dynamic Indicator of Basic Early Literacy Skills (DIBELS) probes during the students' third-grade year and then again in their fourth-grade year. The students participated in proficiency testing during their fourth-grade year and were given up to three attempts to score proficient or advanced.

DIBELS benchmarks establish that students should be reading at least 110 words per minute by the end of their third grade year and 118 words per minute by the spring of the fourth grade (Good, Kaminski, Simmons, & Kame'enui, 2001). The third-grade goal of 110 words served as an appropriate cut score for students scoring proficient or advanced on the Ohio Fourth-Grade Proficiency Test. The fourth-grade goal of 118 words per minute led to a high probability of scoring proficient or advanced when students participated in interventions and had multiple attempts to pass. Correlational results between oral reading rates and the Ohio Fourth-Grade Proficiency Test of .61 to .65 were similar to those findings of McGlinchey and Hixon (2005) but were lower than states such as Florida, Illinois, North Carolina, and Colorado. One possible explanation is that the Ohio Fourth-Grade Proficiency Test measures higher-level skills beyond those required to be successful at basic reading (Vander Meer et al., 2005).

Variance in Types of Curriculum-Based Measurement Reading Passages

Traditional measurements of oral reading fluency use the students' current curriculum materials, but many basal reading textbooks have a great deal of variability in readability within the same textbook. Often stories in basal reading textbooks are excerpts from longer stories, so they are missing an element of completeness. Furthermore, students may have already read stories used for CBM, which adds a variable of familiarity (Wheldall & Madelaine, 2000). The following research has been completed to determine how using variant sources of passages for CBM in reading affects desired outcomes from the studies.

Powell-Smith and Bradley-Klug (2001) conducted a study to compare the use of two different sources of reading passages to monitor students' reading progress over time. Students participating in the study were in the second grade and were teacher-identified as having below average reading skills compared to their classmates. The schools that served the students in this study had adopted the *Scribner Reading Series* and the *Macmillan Reading Program*. Students read two passages aloud for 1 minute twice a week for 5 weeks. Each reading session required the students to read one passage from one of the schools' reading series and one passage from the Tests of Reading Fluency (TORF). Readability levels varied for each of the students to ensure they were reading at least 20 words correctly per minute but no more than 60 words per minute throughout the study. No significant differences were found in reading performance using either measure. Therefore, Powell-Smith and Bradley-Klug (2001) concluded that each type of probe could be useful for monitoring student progress especially those students who are not achieving high reading success.

Two studies researched the effects of passage difficulty level when gauging the effectiveness of CBM in reading. In a study conducted by Hintze, Daly, and Shapiro (1998), examiners presented passages on two readability levels to students in the first through fourth grade twice a week for 10 weeks. One passage was at grade level for each student, and the other was at goal level for the number of words students should be reading at the middle of the next year's grade level. Hintze and Christ (2004) designed a study to compare measurement error when randomly choosing reading passages for CBM as opposed to the use of controlled reading passages. Participants in

their study were in second through fifth grade. The oral reading fluency rates from the randomly selected passages were good predictors of reading success.

In both studies, controlling the selection of reading passages in some way, either by grade level or by goal level for the middle of the next school year, resulted in reliable observations of reading ability (Hintze & Christ, 2004; Hintze et al., 1998). In the study by Hintze and colleagues (1998), both grade level and goal level passages demonstrated reliability when monitoring student progress over the 10 weeks of the study. One interesting finding in this study was that first and second grade students had lower oral reading rates on the goal level passages than the third and fourth grade students. This outcome suggests that students still learning the basics of reading may demonstrate more fluency difficulties in general than students who are past that stage.

Two studies in this literature review examined the validity and reliability in using literature-based CBM. Hintze, Conte, Shapiro, and Basile (1997) compared authentic reading material and literature-based material to scores on the Degrees of Reading Power Test (DRP). The researchers defined authentic reading material as actual books not written for any particular grade level that can be categorized as stories, informational texts, or poetry. Literature-based material is defined as grade-appropriate basal readers containing adapted or abridged classical literature, science fiction, contemporary fiction, or historical fiction. Hartman and Fuller (1997) compared literature-based 1-minute reading probes to scores on the Stanford Achievement Test (SAT). Both studies' participants included primary grade students, but Hintze and colleagues (1997)

completed the study in 2 consecutive days while Hartman and Fuller (1997) completed the study over a 2-year period.

Examiners in the Hintze et al. study (1997) asked students to read 15 passages per day from narrative literature-based material and authentic reading material in Grades 1-5. Results indicated that the relationship between oral reading rate and success on the DRP was strong with a mean correlation of .66. Both literature-based material and authentic material at grade level of the participants showed oral fluency rates appropriate for average readers regardless of the type of passage. Oral reading rate decreased as literature-based material and authentic material became more difficult. This factor related to changes that occur across grade levels. Hintze and colleagues (1997) concluded that educators could effectively use authentic material in CBM if they make sure readability is appropriate for the group of students that are using the material.

Hartman and Fuller (1997) gave students reading probes from literature selections that were at current grade level or 1 year above or below. Participants completed these measures three times a year for 2 years. The same students also took the SAT in the fall of their second and third grade years. Results indicated correlations of .79 to .82 between oral reading scores in the fall, winter, and spring and performance on the SAT (Hartman & Fuller, 1997).

Summary

"Reading is a complex performance that requires simultaneous coordination across many tasks. To achieve simultaneous coordination across tasks, instantaneous execution of component skills is required" (L. S. Fuchs, Fuchs, Hosp, & Jenkins, 2001, p.

239). Utilization of CBM to measure oral reading fluency rates is a valid and reliable indicator of reading progress (Ardoyn et al., 2004). Research has demonstrated correlations between oral reading fluency and performance on state-mandated tests, which measure progress on classroom instructional standards. Measuring oral reading fluency across grade levels can provide educators with data in order to develop effective instructional strategies, provide meaningful intervention, and address reading failure and successes from a schoolwide perspective (Good, Simmons, & Kame'enui, 2001).

Few research studies have been conducted on the use of CBM in reading at the middle school and high school level. It remains unclear which assessments are most valuable for measuring the reading progress of older students. Given that previous research demonstrated successful use of CBM in the primary grade levels to predict and monitor reading achievement, CBM may also be useful for students in the upper grade levels. This hypothesis is based on the findings in this literature review that confirm the validity and reliability of reading CBM.

The purpose of this study is to examine the relationship between oral reading fluency and performance on the Ohio Grade 7 Reading Achievement Test. This study was intended to determine the strength of the relationship between the two measures. By demonstrating the validity of oral reading fluency as a progress-monitoring tool, students will benefit because teachers can utilize data obtained through progress monitoring to plan meaningful instruction and intervention.

CHAPTER III

Methods

Setting and Participants

The participants in this study were 75 seventh-grade students who attended a rural middle school in southwestern Ohio. The middle school serves students in Grades 6-8. It had a student population of 560 students; 95.8% of the population was Caucasian. The proportion of students considered economically disadvantaged was 20% in 2006-2007. Students identified as having disabilities represented 16.9% of the student population (Ohio Department of Education, 2007b). The seventh-grade students participating in the study attended classes taught by four core teachers. They rotated to different classroom settings throughout the day. When the students were in sixth grade, they were administered the Ohio Grade 6 Achievement Test in March of 2006 in the areas of reading and math. They were administered the Ohio Grade 7 Achievement Test in May of 2007 in the areas of reading, writing, and math.

Of the 75 participants, 16 students received accommodations during achievement testing in accordance with their Individual Education Program (IEP). Test accommodations utilized by the students included having directions, questions, and answer choices read aloud; having directions broken into steps; prompting to stay on task; and testing within a small group. Although the students with IEP accommodations

were allowed extended time, no student used this accommodation. Four students had a scribe that wrote exactly what the students dictated.

Predictor Variable

During the last two weeks of March 2007 and the first two weeks of April 2007, students were asked to read aloud three passages from the seventh grade basal. The basal used within the classroom is titled *Elements of Literature* and is published by Holt, Rinehart, and Winston. Passages not yet read within the classroom were selected to control for an unplanned variable of familiarity. The passages were at the readability level of the middle of seventh grade as checked using the Dale-Chall readability formula (Wright, 2008). Each passage was retyped double-spaced on plain paper to reduce distractions caused from the textbook format, which includes pictures (Appendix A). The passages were scored according to procedures outlined by Good and Kaminski (2002) (Appendix B).

Students read aloud three passages for 1 minute, and the total number of words read correctly served as oral reading scores. The median of the three oral reading scores was used as the oral reading fluency rate. Words omitted, substituted, and hesitations of more than 3 seconds were scored as errors. Words self-corrected within 3 seconds were scored as correct.

Criterion Variable

The students were administered the Ohio Grade 7 Achievement Tests in May of 2007. The students took tests in reading, math, and writing, but this study focused upon the reading test. The Ohio Grade 7 Reading Achievement Test consists of 36 scored

questions consisting of multiple-choice, short answer, and extended response. The test measures four state standards: reading processes, which include concepts of print, comprehension strategies and self-monitoring strategies; reading applications, which include informational, technical and persuasive text; reading applications dealing with literary text; and acquisition of vocabulary. The students had a maximum of 2.5 hours to take the test, unless they had IEP accommodations that allowed for extended time. Results from the achievement tests are reported using scaled scores. A student must achieve a score of 400 in order for their score to be rated Proficient, and the state requirement is for 75% of students at each grade level to score at or above Proficient. Scores above 432 are rated Advanced, scores between 415 and 431 are rated Accelerated, scores between 385-399 are in the Basic range, and scores below 385 are in the Limited range (see Table 1). The Ohio Grade 7 Reading Achievement Test was first implemented in the spring of 2006, and the reliability coefficient is .87 (Ohio Department of Education, 2007a).

Table 1

Ohio Grade 7 Reading Achievement Test Performance Level Descriptors Adopted by the Ohio State Board of Education in 2006 (Ohio Department of Education, 2006)

Performance Level	Descriptor
Limited	Seventh grade students performing at the Limited level struggle or are unable to perform simple reading tasks and they do not yet have the skills identified at the Basic Level.
Basic	Seventh grade students performing at the Basic level can generally define unknown words or phrases through contextual clues and the use of available resources. They can demonstrate some understanding of textual information.
Proficient	Seventh grade students performing at the Proficient level use their fundamental understanding of word structure, context clues, and text structures to determine the meaning of unknown words and/or phrases. They typically show an overall understanding of literary elements and informational features and structures.
Accelerated	Seventh grade students performing at the Accelerated level use their understanding of word structure, context clues, text structures, and author's style to determine the meaning of unknown words and/or phrases. They can analyze literary elements and informational features and structures to show a complete understanding of a variety of text.
Advanced	Seventh grade students performing at the Advanced level apply their understanding of word structure, context clues, and text structures to determine the meaning of unknown words and/or phrases. They have a concrete understanding of the methods used by the authors to communicate meaning and can make sound judgments about literary and informational text.

Research Design and Procedures

Students participated in this study on a voluntary basis; therefore, convenience sampling was used when selecting participants. Informed consent was obtained from the parents of all students in this study, and the principal gave written approval (Appendix C). No student names were used in this study; all students were assigned study-specific identification numbers. A correlational design was used in this study. The predictor variable was CBM reading, which involved the administration of three seventh grade passages from the classroom basal. The primary researcher administered the passages to the 75 participants using training received in University of Dayton graduate courses. For every tenth student, a teacher also scored the passages to obtain inter-rater reliability. The criterion variable was student performance on the Ohio Grade 7 Reading Achievement Test. Oral reading fluency scores and results from the Ohio Grade 7 Reading Achievement Test were stored in a locked file to which only the primary researcher had the key and were destroyed by a paper shredder upon completion of this study.

CHAPTER IV

Results

Data Analysis

The SPSS 16.0 statistical software program was used to calculate a Pearson r correlation coefficient between oral reading fluency rate and performance on the Ohio Grade 7 Reading Achievement Test. The correlation coefficient was squared to determine the percentage of the variance in the criterion variable accounted for by CBM oral reading fluency. The proportion of Ohio Grade 7 Reading Achievement performance variance was determined, which is accounted for by its linear relationship with oral reading fluency.

The mean oral reading fluency score of the 75 participants was 131 words per minute (wpm) with a range of 47 wpm to 191 wpm. The mean score on the Ohio Grade 7 Reading Achievement Test was 414 with a range of 348 to 464 (see Table 2).

Table 2

Mean Performance for Ohio Grade 7 Reading Achievement Test Scores and Oral Reading Scores

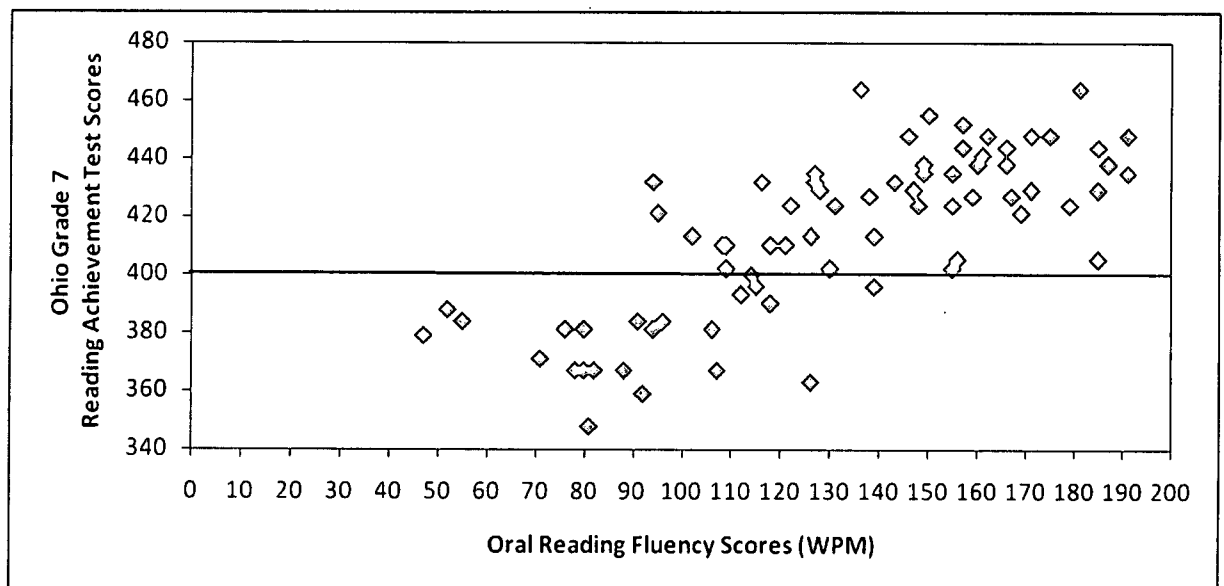
Scores	Mean	Standard Deviation	N
Oral Reading Fluency	130.9	36.6	75
Ohio Grade 7 Reading Achievement Test	414.1	28.5	75

Correlation coefficients were computed between oral reading fluency scores and performance on the Ohio Grade 7 Reading Achievement Test scores. The correlation between the two measures was significant, $r(73) = .76, p < .001$, which is a moderately strong correlation. Oral reading fluency explained 58% of the variance in Ohio Grade 7 Reading Achievement scores among students. When scoring oral reading fluency rates, inter-rater agreement within 5 words was 100%.

Hasbrouck and Tindal (2006) published norms of 150 wpm as the average expected oral reading rate of seventh grade students. Of the 75 students tested, 27 students read 150 wpm or higher, and 100% of those students scored Proficient or better on the Ohio Grade 7 Reading Achievement Test (see Figure 1).

Figure 1

Distribution of Ohio Grade 7 Reading Achievement Test Scores



Of the 75 students, tested 58 students read 100 wpm or higher, and 88% of those students scored Proficient or better on the Ohio Grade 7 Reading Achievement Test. Of the 75 students tested, 17 students read below 100 wpm, and 12% of those students scored Proficient or better (see Table 3).

Table 3

Number of Students Scoring at Each Level of the Ohio Grade 7 Reading Achievement Test

WPM	Students Scoring Limited 384 or below	Students Scoring Basic 385-399	Students Scoring Proficient 400-415	Students Scoring Accelerated 415-431	Students Scoring Advanced 432 or above
40 – 60	2	1	0	0	0
61-80	5	0	0	0	0
81-100	7	0	0	1	1
101-120	2	3	6	0	1
121-140	1	1	4	4	3
141-160	0	0	2	4	9
161 – 180	0	0	0	4	7
181-200	0	0	1	1	5

CHAPTER V

Discussion

Implications

The purpose of this study was to investigate the relationship between oral reading fluency and performance on the Ohio Grade 7 Reading Achievement Test. Previous studies have demonstrated oral reading fluency to be a valid predictor of performance on state assessments for younger students (Barger, 2003; Buck & Torgeson, 2003; McGlinchey & Hixon, 2004; Vander Meer, Lentz, & Stollar, 2005). The results of this study show that oral reading fluency measures at the seventh grade level may be an accurate predictor of performance on state assessments as well. A moderately strong correlation of .76 was found between oral reading fluency and performance on the Ohio Grade 7 Reading Achievement Test. Teachers can use these results to support the use of oral reading fluency assessment as a valid tool for progress monitoring in the seventh grade. Data collected would allow teachers to plan reading intervention strategies for students at risk of not passing the Ohio Grade 7 Reading Achievement Test.

One hundred percent of students who read 150 wpm passed the Ohio Grade 7 Reading Achievement Test, which supports the recommendation by Hasbrouck and Tindal (2006) that seventh grade students should be expected to read 150 wpm. Although 150 wpm is a recommended oral reading rate, 100 wpm seemed to serve as

a valid cut score in terms of making an accurate prediction of whether or not a student passes the Ohio Grade 7 Reading Achievement Test. Eighty-eight percent of students reading at least 100 wpm scored Proficient or better while only 2 of the 17 students, or 12%, who read below 100 wpm passed the Ohio Grade 7 Reading Achievement Test.

Limitations and Suggestions for Future Research

One potential limitation of this study was the small, rural population sample used. The fact that there were only 75 students with fairly homogenous cultural backgrounds and socioeconomic statuses may limit the generalization of the study results. Future studies with larger, more diverse populations may be necessary to ensure that oral reading fluency is truly a valid predictor of success on state assessments at the seventh grade level.

Another limitation is that the Ohio Grade 7 Reading Achievement Test content changes from one year to the next. Although the test measures the same concepts each year, the passages in which the questions are based upon vary. It may be necessary for future research to be conducted longitudinally to ensure that a correlation exists from year to year.

Finally, this study used fictional passages from one reading series. Future research in which oral reading scores are derived from the use of nonfictional and fictional passages from various reading series may further validate the use of oral reading performance as a predictor of success on state assessments.

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APPENDIX A

Sample Reading Passage from "After Twenty Years"

by O'Henry (Elements of Literature, 2005)

The policeman on the beat moved up the avenue impressively. The impressiveness was habitual and not for show, for spectators were few. The time was barely ten o'clock at night, but chilly gusts of wind with a taste of rain in them had well nigh depeopled the streets. Trying doors as he went, twirling his club with many intricate and artful movements, turning now and then to cast his watchful eye down the pacific thoroughfare, the officer, his stalwart form and slight swagger, made a fine picture of a guardian of the peace. The vicinity was one that kept early hours. Now and then you might see the lights of a cigar store or of an all-night lunch counter, but the majority of the doors belonged to business places that had long since been closed.

When about midway of a certain block, the policeman suddenly slowed his walk. In the doorway of a darkened hardware store, a man leaned with an unlighted cigar in his mouth. As the policeman walked up to him, the man spoke up quickly.

"It's all right officer," he said reassuringly. "I'm just waiting for a friend. It's an appointment made twenty years ago. Sounds a little funny to you, doesn't it?"

APPENDIX B

Oral Reading Fluency Scoring as Outlined by Good and Kaminski (2002)

1. Each student will be given a passage, and the examiner will have a copy of the same passage on a clipboard positioned so the reader cannot see the marks being recorded.
2. The examiner will read these directions to each student: "Please read this passage aloud for one minute. If you get stuck on a word, I will tell you the word after three seconds so you can continue reading. Please try your best."
3. The examiner will start the stopwatch when the student says the first word of the passage.
4. The examiner will place a bracket after the last word the student reads aloud at the end of 1 minute.
5. The number of words that the student reads correctly will be recorded at the bottom of the examiner's scoring sheet.
6. If a student pauses at a word for 3 seconds, the examiner will tell the reader the word and will mark it as an error.
7. Mispronounced words are scored as errors.
8. Omitted words are scored as errors.
9. Self-corrections within 3 seconds are scored as correct.
10. Repeated words are not scored as errors and are ignored when scoring.
11. Imperfect pronunciation due to dialect, articulation, or second language interference will not be scored as an error.
12. Inserted words are not scored as errors and are ignored when scoring.
13. Words read correctly but in the wrong order are scored as errors.

APPENDIX B, Continued

14. Abbreviations need to be read in the way they are normally pronounced in conversation to be counted as correct.
15. The student will be administered three passages; the scoring procedures will be the same for each passage.
16. The median score of the three passages will serve as the student's oral reading fluency rate.

APPENDIX C

Letter of Written Consent

Dear Parents:

My name is Chrissy Miller, and I am one of the seventh grade teachers at Graham Middle School. I am currently completing my thesis at the University of Dayton to obtain my Educational Specialist Degree in School Psychology. I am sending this letter home with your child in hopes of gaining permission to use reading data I collect from our seventh grade students for my thesis. The title of my thesis is "Relationship between Oral Reading Fluency and Performance on the Ohio Grade 7 Reading Achievement Test."

If you grant permission for your child to participate in this study, I would ask him or her to read three reading passages aloud for me each for 1 minute to obtain an oral reading score. Then, when your child takes the Ohio Grade 7 Reading Achievement Test, I will compare his or her oral reading score with his or her performance on the state reading test.

By participating in this study, the students will get the chance to practice their reading skills while working one-on-one with a teacher. In addition, I am offering each student a chance for their names to be put into a drawing for restaurant gift certificates or movie tickets as a "thank-you" for participating in this study. The students'

APPENDIX C, Continued

participation may benefit future seventh grade students by giving their teachers research-based data to plan intervention strategies for future students.

There are no anticipated risks to the students from participating in this study, but participation is strictly voluntary and can be ceased at any time. No student names will be used in this study; all students will be randomly assigned study-specific identification numbers. Data will be reported as a group, not individually. Oral reading fluency scores and results from the Ohio Grade 7 Reading Achievement Test will be stored in a locked file to which only I will have the key and will be destroyed by a paper shredder upon completion of this study.

If you have any questions about my thesis, please feel free to contact me at 663-5339 ext. 3310. Questions about participation in this study can be addressed to Jon Nieberding., Chair of the Committee for the Protection of Human Subjects, Kettering Labs Room 542, +0104, 229-4053.

Consent to Participate: I have voluntarily decided to allow my child to participate in this research for Chrissy Miller's thesis. This graduate student has adequately answered all questions that I have about this research, the procedures involved, and my child's participation. I understand that the graduate student will be available to answer any questions that I have about the data she is collecting for her thesis. I also understand that I may refuse to participate or voluntarily terminate my child's participation in this

APPENDIX C, Continued

research collection at any time without penalty. The graduate student may also terminate my child's participation in this research if he feels this to be in his or her best interest.

Parent Signature

Date

Signature of Graduate Student

R002593929