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Predicting Early Reading Achievement: Identifying Effective Assessment Tasks

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Abstract

This study examined the relations among two strong, early predictors of reading achievement. Building on the work of Morris, Trathen, Schlagal, Gill, Ward, and Frye, (2013) the present study compared the predictability of a sight word task and spelling task on a contextual reading task. Data from the Morris et al. study were used to evaluate the relations among independent variables (sight word and spelling tasks) and a dependent variable (words read correctly per minute on a contextual reading task). Student performance on the sight word and spelling tasks at three time points in first grade and one time point in second grade were evaluated on the ability to predict words read correctly per minute at the end of second grade. Relations among variables in first grade were also examined.

Over the past 15 years, two sets of federal legislation—the *No Child Left Behind Act* (NCLB) (U.S. Department of Education, 2001) and *Race to the Top* (2009)—have greatly influenced how American children are taught to read in the early grades (kindergarten through third grade). Now, more than ever, in this age of high-stakes testing, classroom teachers need effective assessment measures which they can use to identify those students who are struggling, identify those students who may struggle later, and inform instructional practice.

The present study was designed to expand on Morris, et al. (2013) longitudinal study which compared a prevalent assessment system employed in many states and school districts across the country. In comparing *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS) (Good, Kaminski, Cummings, Dufour-Martel, Petersen, Powell-Smith, Stollar, & Wallin, 2011) tasks with tasks developed by Morris and colleagues, the researchers found that the assessment measures were more highly correlated with reading achievement than measures employed by DIBELS.

Given the critical need for effective, informal reading assessment in kindergarten and first grade, and the potential shown by formative tasks in the Morris et al. (2013) study, the present study further examined specific tasks used in that study, namely *spelling* (orthographic knowledge) and *sight word knowledge*. The goal is to see which of these two tasks, administered at different time points in first grade (T1, T2, and T3), and second grade (T4) is the better predictor of an of end-of-second-grade measure of reading fluency (T5).

Theoretical Framework

If the goal is to understand how word recognition develops in beginning readers, then one needs a theory—an explanation of how word recognition progresses or improves over time.

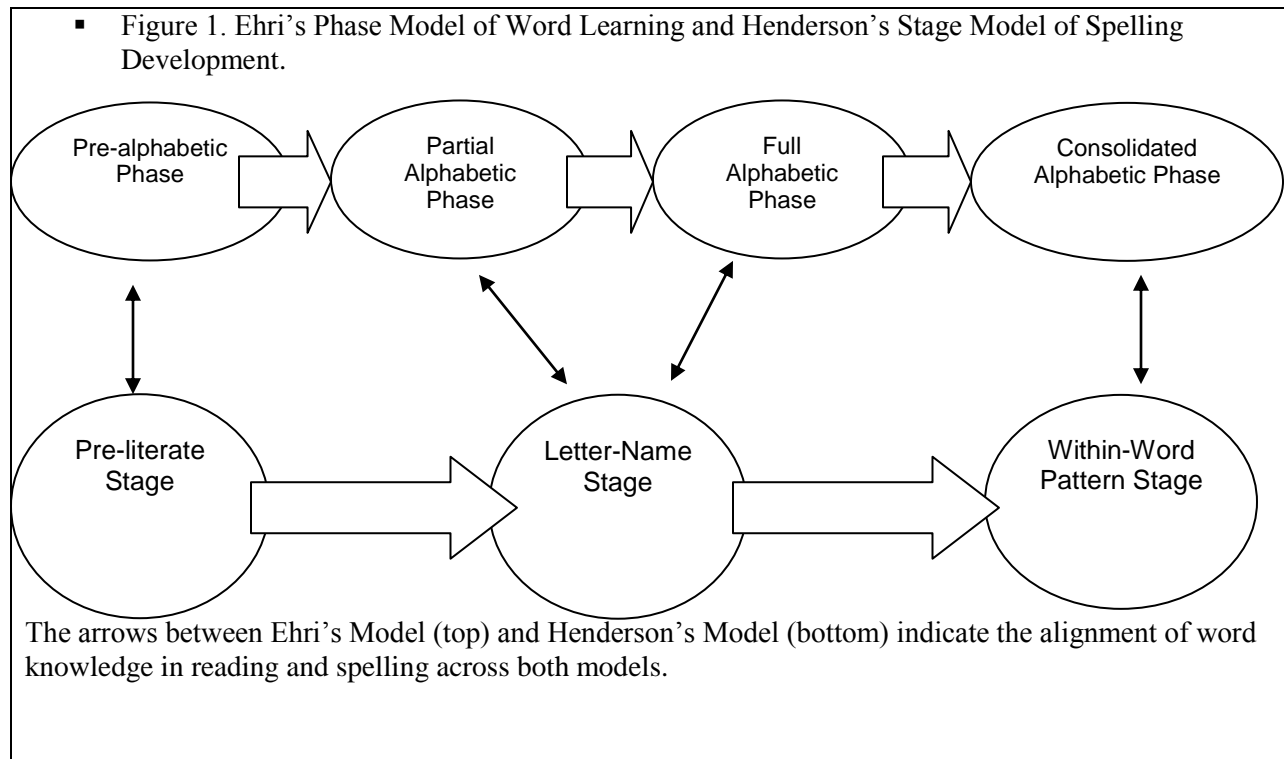
Fortunately, there is some consensus among educators and psychologists on this matter, and this agreement is captured in Linnea Ehri's (1998) model of early *sight word* development.

Ehri's Model of Sight Word Development

Ehri's (1998) phase model of word learning outlines the beginnings of reading acquisition. The model is specific to sight word acquisition, but is also closely tied to the development of spelling ability. The meaning of *sight word* that pertains to this study refers to printed words of various difficulty levels that are recognized accurately and automatically on sight. Ehri (1998) describes four phases of sight word development in young readers.

Henderson's Stage Model of Spelling Development

Sight words are acquired by the learner forming connections between sounds in the pronunciations of words (phonemes) and the letters (graphemes) in spellings that represent those sounds (Ehri, 1998, 2005). Learning a sight word requires that the reader attend to the spelling and pronunciation of the word. The reader is able to recognize the phoneme to grapheme matching in the word and after reading the word multiple times, it is secured in memory by those phoneme to grapheme connections (Ehri, 2005). Therefore, learning to read and spell in English are reciprocal processes (Ehri, 1998). The development of one, more often than not, reflects the development of the other. Ehri's phase model is supported in large part by the developmental spelling model put forth by Edmund Henderson (1981).



Share's Self-Teaching Hypothesis

Share's self-teaching hypothesis asserts that decoding, the process of matching graphemes to phonemes in order to pronounce words, is the key to beginning readers increasing their abilities to accurately and automatically recognize written words (Share, 1995; 2008). Orthographic knowledge is critical for visual recognition of words, a process central to self-teaching. An example may help here. Think of a first grade boy reading the following sentence, "The cat likes to play with bugs." Possessing a few sight words and some phonemic awareness, the child might be expecting the following spelling of the new word *bugs*: B-O-G-S. Upon seeing the U spelling of the vowel, the child has a chance to process, and store in memory, the correct spelling of the word. This example shows that successful decoding attempts with new letter strings (e.g., *bugs*) provide opportunities to establish correct word representations in memory (see Perfetti, 1992).

When the reader has a rudimentary knowledge of orthography and a minimal sight word vocabulary, the self-teaching mechanism is activated quite early, allowing the reader to decode some of the unknown words encountered in contextual reading. This self-teaching model is item-based. That is, the reader uses known sight words, orthographic knowledge, and phonological knowledge to decode novel words. In addition, the self-teaching mechanism develops in tandem with the reader's development in word reading as outlined by Ehri (1998) and knowledge of orthography as outlined by Henderson (1990). As the reader continues to develop these knowledge sets, she acquires, through the act of decoding, the specific orthographic representations of words required for automatic recognition (Share, 1995). Furthermore, while the model is item-based in word recognition, the orthographic structures of successfully decoded words can be used to read novel words with the same, or similar, structures by analogy (e.g. knowing *night* and *right*, the young reader may be able to recognize *bright*.)

This study is concerned with the developing printed word knowledge of first-grade readers, the accurate assessment of the development of this knowledge, and its ability to predict later contextual reading fluency. Therefore, Ehri's and Henderson's descriptions of *content* (characteristics of word knowledge phases) and Share's description of *process* (self-teaching) will both be helpful in interpreting or making sense of the data collected.

Ehri's phase model of word learning, Henderson's stage model of orthographic knowledge development, and Share's self-teaching hypothesis highlight the steps necessary to become a fluent reader. Although reading acquisition is a lifelong process, the hallmark of mature reading is the ability to read connected text with fluency, automaticity, and understanding (e.g. Ehri, 1998; Perfetti, 1985; Laberge & Samuels, 1974).

Words Correct Per Minute

Words read correct per minute (WCPM) is a measure of oral reading fluency. This measure gives insight into the child's reading ability with varying levels of text. Reading fluency, sometimes referred to as reading rate, can indicate whether a reader's issues are in making meaning, which can be a deficit in vocabulary knowledge, prior experience, or syntactic knowledge, or if the issues are at the print level. Print-level deficits can stem from lack of sight word knowledge, delays in orthographic knowledge development, inadequate decoding skills, or phonological awareness/processing deficits. Guszak states: "The fluency or rate with which a pupil reads materials reveals rather clearly whether pupils are having meaning or word recognition difficulties with text" (p. 24, 1997). The minimum oral rate for reading first grade reading materials, according to Guszak, is 60 words per minute. For second grade materials, the minimum oral reading rate is 70 words per minute.

Because rate is such a useful indicator of word recognition and comprehension, it is the first screen that a teacher should apply as he observes a pupil reading self-selected text. Such verification can provide support as to whether the pupil is prospering or suffering in that text. If the rate is fast and fluent the student is obviously doing well. If, however, the rate is near or below the minimums, there is strong reason to question why that pupil is reading so slowly. (Guszak, p. 73, 1997)

The importance of reading fluency, as measured by WCPM, is supported by the work of Ehri (1998; 2005), Henderson (1990) and Share (1995). Reading acquisition begins in the earliest grades, and in order to facilitate these processes, reliable and efficient assessments must be available for use in early identification of those students who may struggle with learning to read.

Methodology

Data used in this study were collected as part of a longitudinal study that began in the fall of 2010. Specifically, Morris et al. (2013) were concerned with how their formative assessments compared to subtests of the DIBELS assessment (Good et al., 2011) in terms of predictive validity. A subset of the data from that study was used in the current study to examine the relations between the sight word task (SW) and the spelling task (SP) at the beginning (T1), middle (T2), and end of first grade (T3). I also examined SW and SP at the middle of second grade (T4), and WCPM at the end of second grade (T5). The relations between SP at T1, T2, T3, T4, and WCPM at T5 were also examined.

Participants

The participants were first graders (N= 127) from two rural school systems in southern Appalachia. All students were participants in a longitudinal study across grades kindergarten, first, second, and third. This study looked specifically at measures taken during first and second grade.

Assessments

Students were tested individually at three time points during the first grade school year (T1, T2, and T3) and two time points during the second grade school year (T4 and T5). Assessments that targeted key components of print processing (i.e. word recognition in isolation, oral reading accuracy, and word attack skills) were used. The study design can be found in Figure 2.

	Fall First Grade (T1)	Winter First Grade (T2)	Spring First Grade (T3)	Winter Second Grade (T4)	Spring Second Grade (T5)
Sight Words (SW)	X	X	X	X	
Qualitative Spelling (SP)	X	X	X	X	
Words Correct per Minute (WCPM)			X	X	X

Figure 2. Study Design. The assessment tasks at each time point. Words Correct per Minute T5 is the criterion measure (dependent variable).

To measure sight word recognition in isolation, students were asked to read a list of high-frequency words. The list included both decodable, pattern words and words that students could not decode using knowledge of letter-sound relationships. Students had sixty seconds to read as many of the words as possible. To measure word attack skills, students were asked to spell graded word lists. The first grade list consisted of phonetic spellings (e.g. chip, pet), while the second grade list represented pattern spellings (e.g. cloud, shopping). Finally, to measure oral reading fluency, graded passages from an informal reading inventory were used. All assessment tasks are from *The Morris Informal Reading Inventory* (Morris, 2014) and can be found in the appendices. Oral reading fluency at the end of second grade was the criterion measure.

Findings and Discussion

In order to best represent differences in student development, as well as increase variance, new variables were created in SPSS (version 20). Qualitative spelling scores were combined by computing the sum of the first and second grade scores T3 (spring of first grade) and at T4 (winter of second grade). New variables were also created for WCPM (rate). The mean

of WCPM on primer and first grade passages at T4, and first and second grade passage at T5 (spring of second grade, which is also the criterion measure). Rate was averaged to reflect the variation in student reading levels. Using only grade level passages would limit scores to only those of students reading on grade level. In a single classroom students perform at a wide range of abilities. By averaging the reading rate, scores were more reflective of student reading ability.

After computing new variables, data were screened for outliers. There was a wide range of scores within tasks, which is typical for readers at early stages of reading acquisition. Descriptive statistics were used to identify the means and standard deviations for each variable. These results are found in Table 1. The mean comprehension score of all participants was 86% ($n = 127$). Comprehension is reported in order to demonstrate that students were reading for understanding, not simply reading as quickly as possible. Comprehension scores were not included in any of the regression analyses because this study was specifically focused on qualitative spelling and sight word knowledge as predictors of reading achievement as measured by WCPM at T5.

Table 1

Descriptive Statistics of Variables (n=127)

Variables	T1		T2		T3		T4		T5	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
SW	18.8	15.4	36.9	19.0	49.0	19.7	63.4	19.0	---	---
SP	31.5	6.3	36.9	3.93	78.0	11.7	83.6	8.1	---	---
WCPM	---	---	---	---	54.7	30.2	95.1	35.2	104.8	37.9
Comp.	---	---	---	---	87.0	27.1	86.9	18.4	88.1	24.3

Note. WCPM and Comprehension were not measured at T1 or T2.

Comprehension was not used in the regression analysis.

The analysis of descriptive statistics, specifically standard deviations, revealed a wide range of scores within tasks, which is typical for readers at early stages of reading acquisition.

Findings from this study support findings of the Morris et al. (2013) study that early spelling and sight word reading are good predictors of later contextual reading, i.e., reading fluency.

Analysis of descriptive statistics (see Table 1) revealed that scores on spelling, sight word reading, and contextual reading improved across time as students gained experience and became more proficient in reading. SW and SP especially exhibited an increase in mean scores over time (T1 to T4). WCPM mean scores also increased from end of first grade to end of second grade (T3 to T5). Because the measures were taken across time and grade levels, these trends were expected as they mirrored the growth students were making in literacy. This growth is consistent with the development of underlying word knowledge outlined in the past research of Ehri (1998), Henderson (1990), Perfetti (1985, 1992) and Share (1995, 2008).

Comprehension score means were consistently strong, which indicated students were reading for meaning during the reading of connected text task. The end goal of reading is to construct meaning (e.g. Chall, 1983; Gough & Tunmer, 1986; LaBerge & Samuels, 1974; Perfetti, 1992, 2007; Perfetti & Hart, 2002), and a rate score measured in the absence of comprehension of the text cannot be a true measure of reading achievement. Thus, this finding was important to note since many assessments that claim to measure rate, such as DIBELS, do not require students to read for understanding, but instead to read as quickly as possible.

Table 2

Correlations (n = 127)

	T1 SP	T1 SW	T2 SP	T2 SW	T3 SP	T3 SW	T3 WCPM	T4 SP	T4 SW	T4 WCPM	T5 WCPM
T1 SP	---	.63*	.63*	.63*	.63*	.60*	.58*	.54*	.53*	.44*	.46*
T1 SW		---	.50*	.86*	.47*	.75*	.83*	.45*	.62*	.63*	.60*
T2 SP			---	.60*	.81*	.66*	.58*	.68*	.57*	.56*	.56*
T2 SW				---	.59*	.93*	.95*	.62*	.81*	.81*	.79*
T3SP					---	.69*	.58*	.79*	.63*	.61*	.60*
T3 SW						---	.92*	.69*	.89*	.87*	.83*
T3 WCPM							---	.59*	.82*	.83*	.80*
T4 SP								---	.70*	.66*	.66*
T4 SW									---	.89*	.86*
T4 WCPM										---	.91*

Note. * $p < .01$ Every correlation is significant at the .01 level.

Correlational analyses (Table 2) demonstrated strong, positive, statistically significant relations among all variables. As revealed in Table 2, every correlation was significant at the .01 level, meaning there is less than a one in one hundred instance in which the relations among the variables occurred by chance. Correlation values (r) of .40 to .69 are considered to indicate strong relations, while an r value of .70 or higher indicate very strong relations (Huck, 2008). Correlations among spelling (SP) scores across assessment time points were consistently strong, and correlations between SP and WCPM remained consistently strong and positive across time. And as expected, scores with the strongest correlations were those that occurred closer together in time.

Importantly, SP and SW were strongly correlated at all time points. The strength of the relations between SP and SW across time is substantiated by the work of Ehri (1998) and Henderson (1990) (see Figure 1). Children's knowledge of sight words and orthography develops similarly and, quite often, in tandem. While SP and SW were strongly correlated with each other, and SP was strongly correlated with WCPM, somewhat surprising, correlations between SW and WCPM were stronger than those between SP and WCPM at each time point, and increased across time also. Perfetti (1992) as well as others have argued that spelling is the best early predictor of contextual reading. These data reveal that, while both early assessments (SP and SW) predict WCPM at end of second grade, SW correlations consistently were stronger. This finding suggests that sight word reading may be a stronger predictor of contextual reading than spelling.

A possible explanation for this finding is that heavy focus on spelling instruction in first grade may have influenced the impact of the spelling assessment. That is, teaching synthetic phonics may enable children to spell words they cannot read fluently. T1, T2, and T3 spelling measures all included the first-grade spelling list consisting of simple letter to sound patterns. Such spelling patterns were the focus of synthetic phonics instruction children were receiving, so students were adept at producing those patterns. Yet, children were not able to perform as well in the contextual reading task, nor were they able to perform as well on the sight word task. Whatever the explanation, these data demonstrate a distinct advantage to using the sight word task as a predictor of later reading fluency.

The strength of relations among WCPM measures was very highly correlated and increased over time. WCPM was the criterion measure for the study; rates of students reading leveled passages for meaning was a proxy for reading achievement because it captured their

ability to rapidly recognize words in context. Researchers agree that this ability to accurately and automatically recognize printed words drives the fluent reading process (e.g., Adams, 1990; Perfetti, 1985; 1992; Rayner & Pollatsek, 1989). The rate measure also captured the transitions being made as children progress from Chall’s (1983) Stage 1 into Stage 2 of reading development—reflecting students’ transition from being “glued to print” to becoming “unglued,” the crucial switch that must be made in order for students entering 3rd grade to begin reading for learning (Chall, 1983).

Table 3

Standard Multiple Regression of all Variables Model Summary

R	R Square	Adjusted R Square
.88	.77	.76

Table 4

Results of Multiple Regression with all Variables

Variables	B	Beta	t	P
T1 Spell	-.80	-.13	-2.04	.04
T1 SW	-.15	-.06	-.67	.51
T2 Spell	.30	.03	.40	.69
T2 SW	.80	.40	2.43	.02
T3 Spell	.25	.08	.82	.42
T3 SW	-.10	-.05	-.30	.77
T4 Spell	.27	.06	.74	.46
T4 SW	1.16	.58	5.79	.00

Table 5

Hierarchical Multiple Regression of Time 4 Sight Words Model Summary

R	R Square	Adjusted R Square
.86	.74	.74

Table 6

Results of Hierarchical Regression with T4 Sight Words Entered First

Variables	B	Beta	t	P
T4 SW	1.71	.86	18.80	.00
T1 Spell	-.80	-.13	-2.04	.04
T1 SW	-.15	-.06	-.67	.51
T2 Spell	.30	.03	.40	.69
T2 SW	.80	.40	2.43	.02
T3 Spell	.25	.08	.82	.42
T3 SW	-.10	-.05	-.30	.77
T4 Spell	.27	.06	.74	.46

Table 7

Hierarchical Multiple Regression of T2 Sight Words Model Summary

R	R Square	Adjusted R Square
.79	.62	.62

Table 8

Results of Hierarchical Regression with T2 Sight Words Entered First

Variables	B	Beta	t-value	p-value
T2 SW	1.57	.79	14.32	.00
T1 Spell	-.80	-.13	-2.04	.04
T1 SW	-.15	-.06	-.67	.51
T2 Spell	.30	.03	.40	.69
T3 Spell	.25	.08	.82	.42
T3 SW	-.10	-.05	-.30	.77
T4 Spell	.27	.06	.74	.46
T4 SW	1.16	.58	5.79	.00

Table 9

Hierarchical Multiple Regression of T1 Qualitative Spelling Model Summary

R	R Square	Adjusted R Square
.46	.21	.20

Table 10

Results of Hierarchical Regression with T1 Spelling Entered First

Variables	<i>B</i>	<i>Beta</i>	<i>t-value</i>	<i>p-value</i>
T1 Spell	2.74	.46	5.74	.00
T1 SW	-.15	-.06	-.67	.51
T2 Spell	.30	.03	.40	.69
T2 SW	.80	.40	2.43	.02
T3 Spell	.25	.08	.82	.42
T3 SW	-.10	-.05	-.30	.77
T4 Spell	.27	.06	.74	.46
T4 SW	1.16	.58	5.79	.00

Standard Multiple Regression Analyses (SMR) were used to reinforce the findings from the correlation analyses and to identify how well the independent variables were predicting scores for the reading achievement measure (WCPM T5). SMR analysis indicated all predictors in the study accounted for 76% of the variance for WCPM (T5). The analyses also revealed that SW (T4), SW (T2), and SP (T1) were the three strongest predictors of WCPM at T5.

Surprisingly, only one of the four spelling assessment time points was a strong predictor of end of second grade reading achievement. While the SP task is still an early predictor of later reading achievement, SW knowledge proved to be a better predictor according to the SMR analysis, consistent with the correlation analyses.

Hierarchical Regression (HR) analyses were conducted to further investigate and evaluate the relations among independent variables identified as strong predictors by the initial SMR and to identify which tasks at which time points were most significant in the model. Sight Words at T4 was entered into the first HR model because SW (T4) was most significant ($p < .01$) in the

initial SMR model. In this first HR model, 74% of the variance was accounted for by SW (T4). This finding was not surprising given how close in time to the criterion measure time point the task was administered. The pattern seen here also was revealed in the descriptive statistics—relations among and between tasks were stronger the closer in time they were measured. The regression analyses support the findings from the correlation analyses that sight word reading is a very good predictor of children's reading performance (measured by contextual reading scores).

The SW measure is a timed task, making it a useful tool for evaluating a child's level of automaticity (Guszkak, 1997; LaBerge & Samuels, 1974). An accurate and automatic identification of a word is also indicative of the quality of lexical representation (Perfetti, 1985). And, while the acquisition of reading is a lifelong process, readers making the transition into Chall's (1983) Stage 2 of reading development can demonstrate the ability to read connected text with fluency, automaticity, and understanding (e.g., Ehri, 1998; Perfetti, 1985; LaBerge & Samuels, 1974). In fact, as early as late second grade, children must be able to read in this seemingly mature manner in order to begin reading for learning (Chall, 1983).

In summary, for early readers a more developed sight word vocabulary should indicate reading success later in one's schooling. Indeed, this study demonstrates that a simple sight word task, timed for one minute, can predict with accuracy students' reading fluency scores a year later. According to the Simple View of Reading (Gough & Tunmer, 1986), early reading skill is heavily influenced by the efficiency of the print processing aspect of their model, and this is what the sight word reading task is capturing. As reading ability develops, as Chall (1983) has outlined, the language comprehension (L) component becomes increasingly more important to the task of reading for meaning (Gough & Tunmer, 1986). But, in these early stages, print

processing efficiency is paramount to the success of the reader, and accurately measuring this ability is important for teachers and students.

Conclusions

Given the instructional needs of children in the early elementary grades whose literacy development can span several developmental stages (Chall, 1983; Ehri, 2005; Henderson, 1990), classroom teachers need effective assessment measures, which they can administer easily and interpret quickly. This study identified two of the strongest predictors of early reading achievement, spelling ability and sight word identification, along with assessment tasks that can be used to measure those skills. Effective assessments can be used in the earliest grades to identify struggling readers before they are caught by standardized tests at the end of third grade, which can result in grade retention.

Furthermore, the predictive power of sight words reinforces the need for a balanced literacy curriculum. Sight word acquisition is achieved through practice reading connected text at the appropriate level for each child (Adams, 1990; Ehri, 1998, 2005; Morris et al., 2012; Perfetti, 1992; Perfetti & Hart, 2002; Perfetti, Rieben, and Fayol, 1997). Children must have plenty of opportunities to read contextually in conjunction with explicit phonics instruction in order for reading skills to develop.

Reading connected text for meaning offers children opportunities to practice the skills that are often taught in isolation (e.g. synthetic phonics). Connecting fundamental skills in the act of reading authentic texts is the key to kick-starting Share's (1995) self-teaching mechanism, allowing lexical word representations to become fuller and more redundant in the young reader's mind (Perfetti, 1985, 1992, 2007). The lack of instruction and practice with connected text can

be revealed by students' scores on the sight word task, and this in turn provides a powerful reminder to teachers that the goal of reading instruction is reading.

In conclusion, teachers need effective assessments to identify students who may struggle with reading. These assessments must be accurate and easy to use, and they must be administered as early as possible. Classroom teachers must use these assessments to develop effective and appropriate balanced instruction for all learners. This study found that the SW measure in the winter of first grade is a strong predictor of reading a year and a half later, providing the opportunity to identify struggling readers well before third grade.

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Appendix A

Spelling Task

First Grade List

1. trap (a mouse trap)
2. bed (under the bed)
3. wish (make a wish)
4. sister (my big sister)
5. drop (drop the ball)
6. bump (a bump in the road)
7. drive (drive the car)
8. plane (a plane in the sky)
9. ship (a ship on the ocean)
10. bike (ride a bike)

Second Grade List

1. train (a train ride)
2. thick (a thick board)
3. chase (chase the car)
4. dress (a blue dress)
5. queen (the Queen of England)
6. cloud (a white cloud)
7. short (a short stick)
8. shopping (go shopping with mom)
9. cool (it's cool outside)
10. stuff (lots of stuff)

Appendix B

Sight Word Task

Directions: Mark through each error. Place a large slash mark (/) to indicate last word attempted.

is	cat	my	good	come	and
up	play	big	are	from	old
little	where	hide	cut	bad	new
need	made	eat	find	does	back
two	men	white	feed	push	again
table	class	stand	cloud	leave	into
happy	school	them	window	tail	isn't
part	children	drove	above	dug	gate
flow	change	wash	person	north	blanket
melt	asleep	dollar	blow	kept	giant
explain	coin	shade	office	straight	pillow
robber	finish	slide	print	soup	wing
prize	shoot	travel	spoon	toward	stomach
pool	vegetable	seal	accept	legend	slipper
dresser	customer	plop	further	closet	storyteller

Appendix C

Sample Contextual Oral Reading Passages

LATE FIRST GRADE (F & P level J/K)

Examiner’s Introduction: This story is about two friends, Frog and Toad.

One hot summer day Frog and Toad sat by the pond.

“I wish we had some sweet, cold ice cream,” said Frog.

“What a good idea,” said Toad.

Toad went to the store. He bought two big ice-cream cones.

Toad licked one of the cones. “Frog likes chocolate best,” said Toad, “and so do I.”

Toad walked along the path. A large, soft drop of chocolate ice cream slipped down his arm.

“This ice cream is melting in the sun,” said Toad.

Toad walked faster. Many drops of melting ice cream flew through the air.

Questions

1. What did Frog want on the hot summer day? (ice cream)
2. Where did Toad get the ice cream? (at the store)
3. How much ice cream did Toad buy? (two cones)
4. What problem was Toad having at the end of the story? (the ice cream was melting)

Words: 100

Errors: _____

Accuracy: _____%

Rate (6,000/sec): _____ wpm

Comprehension: _____%

Second Grade

Examiner's Introduction: This story is about a hungry fox.

One day, Fox was walking through a forest. It was late summer. He knew that berries and other fruits would now be ripe. Suddenly, Fox felt hungry. He looked up and saw a bunch of grapes on a high branch. Each grape looked red and plump.

“Those grapes look good,” said Fox. So Fox jumped up to grab them, but the grapes were too high. Fox tried again. This time he took a running start. He jumped as high as he could. Still, he could not reach the grapes. Fox tried and tried. Each time he missed the grapes by inches.

Finally, Fox became tired. He decided he wasn't so hungry after all. He said, “I be those grapes are sour anyway!”

Questions

1. At what time of year does this story take place? (spring [1/2]; summer [full credit])
2. What was Fox trying to get? (Grapes [1/2]; How did the grapes look? (red, ripe, or plump [1/2])
3. How did Fox try to get the grapes? (He jumped for them.)
4. Why did Fox quit trying to get the grapes? (He became tired. or Grapes were too high for him to reach.)
5. What did Fox tell himself at the end of the story? (“I'm not really hungry.” or “Those grapes are probably sour.”)

Total Errors: _____

Meaning Changes: _____

Oral Read. Acc.: _____%

Comprehension: _____%

Rate (7,320/sec): _____wpm