

**An Investigation of the relationship Between Sight Words Learned in
Kindergarten and Reading Ability in First Grade**

THESIS

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Abstract

The purpose of this study was to investigate the correlation between kindergarten sight word recognition and first grade reading ability. The subjects included 20 first graders in an urban school who had been in the researcher's kindergarten class. In kindergarten, the students were instructed in recognizing 135 sight words. The sight words were comprised from the *Dolch List* as well as words that were frequently used in the classroom. Their recognition of sight words varied from 10-135.

The students were tested in December of first grade to determine their reading level. The data were analyzed quantitatively to determine the correlation between the number of sight words recognized in kindergarten and the subjects' reading ability in first grade. The results of the study showed a high correlation between sight word recognition in kindergarten and first grade reading ability. The results of this study indicate the value of learning sight words in kindergarten.

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CHAPTER 1

Statement of the Problem

Purpose

The purpose of this study was to investigate the correlation between kindergarten sight word recognition and first grade reading achievement.

Research Question

Is there a correlation between sight word recognition in kindergarten and reading achievement in first grade?

Introduction

Sight word knowledge is an important aspect of learning to read. Many teachers of the primary grades focus a significant amount of their reading instruction on sight words. Traditionally the earliest instruction in systematically learning sight words has been at the first grade. However, the push for higher standards has had an impact on reading instruction in the early grades. Each grade has seen the difficulty of its curriculum

increase. Thus, learning sight words in kindergarten has been increasingly emphasized in many schools.

Many kindergarten students learn sight words at a quick rate while others struggle to learn sight words (Gunning, 1998). There are many factors that account for these differences. Kindergarten teachers must decide if they should place a priority on teaching students sight words. Gunning also claims knowledge of sight words plays an integral role in reading. Thus, teaching sight words in kindergarten may be a significant contributor to future reading ability.

Need for the Study

There has been significant research into the effects of kindergarten training on first grade performance. Letter recognition has been used as a predictor of reading achievement in first grade (Kelly & Peverly, 1992). Letter recognition is an important predictor; however there may be other predictors at the kindergarten level of first grade reading achievement.

Sight words are an essential component of early reading. Many of the most common sight words in the English language can not be read phonetically. Johnson (1984) claims that knowledge of sight words is an integral part of becoming a successful reader. As children's familiarity

with sight words increase, their ability to read those words within a text should also increase. In fact, Belfiore, Skinner, and Ferkis (1995) found that increasing the number of times a word is seen by students with learning disabilities had an effect on their ability to recognize words. There are many factors which contribute to a child's ability to recognize sight words. These factors include age, amount of schooling, and reading ability (Adams & Ferkis, 1985).

Studies have shown that letter recognition is a predictor of first grade reading achievement. Students who could rapidly name letters were more likely to be among the better readers in their class in first grade. In addition those students who were deficient in rapid naming of letters tended to be poorer readers according to overall reading measures (Blachman, 1984; Kelly & Peverly, 1992).

Treiman, Tincoff, and Richmond-Welty (1996) found that knowledge of letter names led to an increased ability for preschoolers to begin to recognize words. While this research shows how preschool and kindergarten children learn sight words, there is a need to investigate whether students with a greater knowledge of sight words in kindergarten will be better readers in first grade.

The need for this study has increased over recent years as the state standards have increased. It is becoming increasingly important that students read at a young age. The information from this study could be used by kindergarten teachers as they assess how best to prepare their students for first grade.

Definition of Terms

In this study, the following terms are defined as:

Sight Words- Words that can be recognized instantly.

Cohort- a group of students sharing a common statistical factor in a demographic study (Webster's Ninth New Collegiate Dictionary, 1989).

Chapter 2

Review of the Literature

Purpose

The purpose of this study was to investigate the correlation between kindergarten sight word recognition and first grade reading achievement.

Sight Word Recognition

Recognizing sight words is an important aspect of reading. Students of all ages and abilities can learn sight words. Research has shown that preschool children and students with learning disabilities can learn sight words (Belfiore, Skinner, & Ferkis, 1995; Kratochwill, Demuth, & Conzemus, 1977). There are many factors that contribute to differences in children's sight word recognition. Some of these factors include age, amount of schooling, and reading ability (Adams & Huggins, 1985).

There are many ways to teach word recognition. Johnston (1998) suggested the following ways to enhance word learning: They include:

1. Introduce new words in context.
2. Gradually take away picture cues.
3. Examine words in context.

4. Work with sentence strips.
5. Examine words in isolation.
6. Review words over time.
7. Sort words into categories.
8. Create word sheets for favorite books.
9. Use word banks only with students who need them the most
10. Examine words in isolation in many different ways.

Johnston's suggestions show that there needs to be a balance of activities to effectively teach word recognition.

Juel and Minden-Cupp (1999) support the use of various activities to teach sight words. They found that the most effective methods for teaching words to struggling first grade readers is fourfold. These classroom practices include teacher modeling of word recognition procedures, fingerpointing to words, use of manipulatable materials to compare and contrast words, and the use of small instructional groups with a lesson plan designed to meet the needs of that group.

Of course the basis for word recognition is having a concept of what a word is. Students need a properly developed vocabulary to learn words. They also need to distinguish a word from a letter or number. In order to build this knowledge, students need to many meaningful experiences with print (Olliff, 1991).

Phonemic Awareness and Word Recognition

Phonemic awareness training has been used to enhance the literacy development of early readers. Phonemic awareness involves isolating separate sounds in words (Gunning, 1998). This instruction can be explicit and has been found to be an essential component of the early reading programs of many primary whole language classrooms (Dahl, Scharer, Lawson, & Grogan, 1999). In addition, a beginning reader's phonemic awareness help them in their understanding of how to relate their understanding of a spoken word toward learning to recognize printed words (Morris, 1993).

Phonemic awareness training has been used in several studies to see if it enhances the ability of students to recognize words. Ball and Blachman (1991) examined whether explicit training in phonemic awareness would have an effect on early word reading and spelling. Their findings were that their experimental group who received the training outperformed the control group on tasks of word recognition. Ball and Blachman believe the effectiveness of phonemic awareness training is due to the explicit connection the training has on early reading.

Torgesen, Morgan, and Davis (1992) conducted a study to compare the effectiveness of two different phonemic awareness training programs on word learning. In one training group they combined training in both segmenting and blending. The other training group was only instructed in blending skills. The researchers also formed a control group. The researchers found that the students who were given instruction in both segmenting and blending skills produced significant gains in word learning. The group who received only training in blending did not make significant improvement when compared to the control group.

Effects of Spelling on Word Reading

Studies have shown spelling ability to have a relationship with word learning. Ehri and Wilce (1987) trained kindergarten students in invented spelling for the purpose of seeing if invented spelling ability would help students learn to read. The subjects were taught to spell phonetically predictable words. These same subjects were better able to read similar phonetically predictable words better than a control group.

Richgels (1995) conducted a similar study to see if kindergartners who were good inventive spellers would also have success at reading

phonetically simplified words. The result of the study confirmed the researcher's hypothesis that good inventive spellers would be better phonetic readers than poor inventive spellers. Good inventive spellers outperformed poor inventive spellers on word recognition regardless of whether the words were easy or difficult. Word difficulty did not have any effect on the performance of the subjects as the good inventive spellers outperformed the poor ones at an equal rate. Even when the words were presented the next day the good inventive spellers outperformed the poor inventive spellers at recall at a statistically significant level. The results, according to the researcher, show that even without phoneme instruction good inventive spellers will have an easier time reading phonetically than poor inventive spellers.

Methodology of Teaching Sight Words

The research into the methodology of teaching sight words has revealed varied results. Spaai, Ellerman, and Reitsma (1991) found that as first grade children were learning to recognize sight words, a whole word sound feedback method was more effective for correcting errors than segmenting the word. Furthermore, they found that there were not strong benefits to using a segmented approach to learn sight words

because the most common sight words contain relatively few phonemes. Barbetta, Heward, and Bradley (1993) found similar results in developmentally disabled students. Their study found that developmentally disabled students learned and maintained knowledge of sight words at a better rate using whole word error correction rather than using phonetic prompt error correction. These findings differ from the findings of Carnine (1980) who found that using a phonic strategy does have a positive effect in helping students correct sight word errors. The difference between these findings can at least partially be attributed to Carnine's exclusive use of phonetically predictable words, while Barbetta et al. (1993) used both phonetically predictable and irregular words for their study.

Word recognition can be directly facilitated. Adams and Huggins (1985) found that the use of context can be used to directly teach second through fifth-grade students familiar sight words. However, when the words were unfamiliar to the students, context did not aid them in the recognition of those words. In addition, Belfiore, Skinner, and Ferkis (1995) found that increasing the number of times a word is seen by elementary school students with learning disabilities had a direct effect on their ability to recognize words. Their study used words in isolation

demonstrating that sight word recognition can be facilitated without context as well.

Sight words can be taught in isolation, in context, or a combination of both. Nicholson (1991) did a study on whether context was necessary to teach 6-8 year-old students sight words. Nicholson found that the use of context in the initial teaching of sight words was only necessary for poor readers. He found that average and above average readers could learn new words from lists as well as they could from context.

Tan and Nicholson (1997) found that using flashcards to train 7-10 year-old students who were poor readers could increase their comprehension of text. The flashcards were used to help students decode target words quickly and easily. The technique they used was partially based on the overlearning technique used by Kratochwill, Demuth, and Conzemus (1977). The theory behind overlearning is that students will have better long term retention of words if they continue to see trials of words they have previously been taught. Tan and Nicholson found that the students who received the training outperformed the control group in both reading accuracy and comprehension. They felt the implications of their study could encourage educators to use flashcards to help facilitate reading comprehension and accuracy among poor readers.

Belfiore, Skinner, and Ferkis (1995) also found that the number of repetitions when teaching sight words is essential for students with learning disabilities. They found that it was more important to have multiple trials when learning words than to stop when students recited the correct answer. They found that long term retention of words was more dependent on the trials than the frequency of correct identification of the words.

There has been considerable research into the routes students use to learn sight words. Bloodgood (1999) examined whether the ability of a child to recognize and write his or her name has an effect on literacy acquisition. Her results showed that children who had knowledge of their name were aided in their ability to learn letters and understand concepts about print. Bloodgood's work began with three year old students, demonstrating the value of children learning their name as an initial sight word in order to transition them into further literacy development.

Researchers have studied the effects of teaching words using an onset/rime model. Haskell, Foorman, and Swank (1992) found enough evidence that the onset/rime model of teaching words had a positive effect on word reading that they recommended that further research explore whether this method would be more beneficial than teaching

students to read words at the phoneme level. Ehri and Robbins (1992) found that students need to have the ability to break words into sound units for an onset/rime method to be effective. Similarly, Bowey and Hansen (1994) found that instructing students to learn words using an onset/rime method was effective for some first grade readers. However, its effectiveness was limited to the students who already had a considerable sight word vocabulary.

A study by Scott and Ehri (1990) examined whether pre-readers with letter knowledge would use logographic or alphabetic routes to learn sight words. They found that most pre-readers with alphabet knowledge used letter/sound routes to learn sight words rather than visual spellings or shapes of words. The implications of their research was that the best way to help pre-readers learn sight words is to draw their attention to phonemic cues.

Several studies have shown the superiority of using whole word error correction over the use of phonetically segmented correction of errors in teaching students sight words. Spaii, Ellerman, and Reitsma (1991) found that first grade students found strong effects of correcting sight word errors with the correct word. In addition, their research found a lack of learning effects as a result of the segmented correction method.

Barbetta, Heward, and Bradley (1993) found that students with developmental disabilities also learned sight words better using a whole word correction method rather than a phonetic segmentation method.

Kindergarten Performance as a Predictor of First Grade Performance

There has been a significant amount of research into whether there is a correlation between skills learned in kindergarten and reading ability in first grade. N.E. Silberberg, M.C. Silberberg, and Iverson (1972) found that early training in reading readiness does not necessarily affect future reading ability. The study found that children who learned letter and number identification spontaneously at an early age would be able to apply that information to later reading. However, formalized instruction of kindergartners in number and letter naming did not have a permanent effect on reading achievement.

Later research has produced different results. Rapid naming ability has also been found to be a predictor of reading achievement. Blachman (1984) found that students who could rapidly name letters were likely to be among the best readers by the end of first grade. Kelly and Peverly (1992) found that alphabet knowledge can be used as a predictor

of reading achievement. Children who have a difficult time rapidly labeling items such as letters or colors prior to first grade can be identified as a potentially poor readers in first grade (Blachman, 1984).

Letter recognition has commonly been thought of as the basis for early reading. Students learn to recognize letters and sounds at various ages at different rates (Worden & Boettcher, 1990). A study by Treiman, Weatherspoon, and Berch (1994) suggests that letter names and phonological segmentation ability is correlated with students' abilities to learn phoneme and grapheme relationships in words. The results of a study by Treiman, Tincoff, and Richmond-Welty (1996) supports the premise that knowledge of letter names is an essential link for children to create connections to printed and spoken words at an early age.

Ryan, Ledger, and Robine (1984) established that the use of pictographs to aid in sight word comprehension was successful in both kindergarten and first grade. Through the use of the sentence enactment strategy, which uses pictograms to represent words, students in both kindergarten and first grade significantly increased their comprehension. However, there was no significant correlation between their performance in kindergarten and their performance in first grade.

Socioeconomic status has also been examined in relation to reading ability. Bowey (1995) found that there were significant differences in preschoolers' phonemic awareness based on the socioeconomic status of the parents. Despite statistical control over IQ and verbal ability among the subjects, the students from the lower socioeconomic background performed worse on phonemic awareness tasks.

It may be possible to predict which students will perform better on reading measures based on data from the previous year. Longitudinal data show that students who have an advantage in reading measures would maintain that advantage the next school year. Similarly, students who were poor readers continued to be poor readers the next year. The data show that second graders who had difficulty reading irregular words but had adequate decoding ability performed better in third grade than students who had an average sight word vocabulary but poor decoding skills (Byrne, Freebody, & Gates, 1992).

CHAPTER 3

Design of the Study

Purpose

The purpose of this study was to investigate the correlation between kindergarten sight word recognition on first grade reading achievement.

Methodology

Subjects

The subjects of this study were 21 first graders from an urban elementary public school. There were 12 females and 9 males. Each of the subjects had the same kindergarten teacher but had various first grade teachers. They participated in a half day kindergarten program in either the morning or the afternoon session. This cohort originally contained 32 students. However, given the high mobility of families in that urban setting the number of subjects who returned to the school for first grade decreased to 21.

The kindergarten teacher had four years of general education teaching experience, all of which were at the kindergarten level. The students were disbursed among three different first grade teachers who have similar teaching styles and standards.

Materials/Instruments

The materials used in the kindergarten portion of the study consisted of:

1. The high frequency word list from the *Houghton Mifflin: Invitations to Literacy* program
2. The pre-primer and primer *Dolch* word lists. The pre-primer and primer *Dolch* list contain 90 of the most frequently used words in text
3. Teacher selected sight words
4. A list used for assessment combining all of the sight words pulled from the various sources (see Appendix A for the complete list)

In first grade, the students will be evaluated for their reading level using an alphabetic leveling system (*Fountas & Pinnell, 1999*). (See Appendixes B and C for a description of the alphabetic leveling system).

The materials needed for the system are as follows:

1. Benchmark books from the various levels (see Appendix D for the complete list of benchmark books)
2. Teacher designed comprehension questions for each benchmark book
3. Running Reading records for each student

Procedures

During the 1999-2000 school year the subjects were kindergartners. During that time they were instructed in 135 sight words. These sight words were chosen from the *Houghton Mifflin: Invitations to Literacy* program, *The Dolch List*, and various other words that were frequently encountered in class. Each day they read the sight words in isolation from flash cards. In addition, they wrote shared stories with the teacher using those sight words. The students were also engaged in reading many of those sight words during guided reading sessions about twice a week beginning in January. They were tested in January, March,

and May to assess how many sight words they could recognize in isolation.

During their first grade year the subjects were instructed by four different teachers using whatever methods each teacher selected. In December, the subjects were assessed using an alphabetic leveling system as defined by Fountas and Pinnell (1999) to measure their reading achievement. Each student was assessed individually using these leveled texts. The researcher used running records to record each student's reading accuracy. Criteria for moving up to the next level included reading the text with at least 95% accuracy and demonstrating at least 75% comprehension by answering questions from the story. Each child's reading level was determined by the highest level where the student met both the reading accuracy and the comprehension criteria.

Analysis of Data

The analysis of the data was quantitative. The number of sight words learned in kindergarten was compared with their first grade reading level for the purpose of identifying the presence of a significant correlation between sight word knowledge in kindergarten and later reading achievement.

CHAPTER 4

Analysis of Data

Purpose

The purpose of this study was to investigate the correlation between kindergarten sight word recognition and first grade reading achievement.

Findings and Interpretations

Each student was tested according to the Fountas and Pinnell alphabetic leveling system to find out his or her independent reading level. The benchmark books were chosen by the teacher according to the researcher's perception of the interest level of the books for first grade urban students as well as the indexed reading level of each book (Fountas & Pinnell, 1999). Upon collecting the independent reading data, the researcher computed the correlation between the number of sight words learned in kindergarten and first grade reading achievement.

For the purposes of this study, independent reading level was defined as the highest level a student could read with at least 95% accuracy and at least 75% comprehension. Correlation can range anywhere from 0-1. The closer the result is to 1, the higher the correlation. The hypothesis was that there would be a high correlation between recognition of sight words in kindergarten and first grade reading achievement. For the purposes of this study, the researcher considered .70 or higher a reasonable benchmark in considering whether the data are highly correlated. In order to analyze the data, the alphabetic reading levels had to be converted into numeric reading levels. The conversion went as follows: A = 1, B = 2, C = 3, etc.

Table 1**Correlation Between Sight Words and Independent Reading Level**

Student	Sight Words Known	1st Grade Reading Level	Correlation	Correlation Squared
LP	115	10	0.886809436	0.786430975
AS	115	10		
JC	114	10		
JG	112	9		
ZK	105	7		
NG	101	6		
RB	93	4		
OQ	67	4		
JA	65	4		
RR	57	4		
MR	49	4		
RF	41	5		
MF	41	4		
KB	39	4		
ER	33	4		
AD	30	4		
KC	26	4		
CH	24	2		
EH	16	1		
RB	10	1		

Table 1 presents the correlation between sight word recognition in kindergarten and the students' independent reading level in first grade. A correlation coefficient of .89 was found. A more conservative measure of correlation requires squaring the original correlation coefficient. After squaring the original result a correlation coefficient of .79 resulted. By both measures, the correlation coefficient exceeded the .70 benchmark. The data supported the hypothesis that kindergarten sight word recognition is highly correlated with first grade reading achievement.

As the researcher tested the reading level of each student, the researcher found that there were students who narrowly missed the 95% benchmark in reading accuracy that was set as a criterion for independent reading level. As a result, the researcher chose to collect an ad hoc set of data to determine each student's instructional reading level. The criteria for instructional level were that the student could read the text with at least 90% accuracy and at least 75% comprehension. As with the independent reading level data, the hypothesis was that there would be a high correlation between recognition of sight words in kindergarten and first grade reading achievement. The minimum benchmark for high correlation continued to be .70. Like the previous table, the alphabetic levels were converted to numeric levels.

Table 2

Correlation Between Sight Words and Instructional Reading Level

Student	Sight Words Known	Reading Level	Correlation	Correlation Squared
LP	115	11	0.927154422	0.859615323
AS	115	11		
JC	114	11		
JG	112	10		
ZK	105	8		
NG	101	7		
RB	93	5		
OQ	67	5		
JA	65	5		
RR	57	4		
MR	49	4		
RF	41	5		
MF	41	4		
KB	39	4		
ER	33	4		
AD	30	4		
KC	26	4		
CH	24	2		
EH	16	1		
RB	10	1		

Table 2 presents the correlation between sight word recognition in kindergarten and the students' instructional reading level in first grade. A correlation coefficient of .93 was found. After squaring the original result a correlation coefficient of .86 resulted. By both measures, the correlation coefficient exceeded the .70 benchmark. The data supported the hypothesis that kindergarten sight word recognition is highly correlated with first grade reading achievement. The correlation is higher at the

instructional reading level than at the independent reading level. By comparing Table 1 and Table 2 it is evident that only the top nine students in sight word recognition in kindergarten had a higher instructional reading level than independent reading level. These data show that the higher achieving students further separated themselves in reading achievement when the instructional reading level is used as a benchmark.

CHAPTER 5

Conclusions and Findings

Purpose

The purpose of this study was to investigate the correlation between kindergarten sight word recognition and first grade reading achievement.

Conclusions

Results of the study show that there is a high correlation between a student's sight word recognition in kindergarten and their first grade reading achievement. Even when calculated conservatively, a correlation coefficient of .79 was found between kindergarten word recognition and independent first grade reading level. When ad hoc data were collected and analyzed to determine the correlation between kindergarten sight word recognition and the first grade instructional level, the correlation coefficient was an even higher, .86.

The findings of this research imply that sight word recognition in kindergarten is a predictor of first grade reading achievement. Nineteen out of twenty students were in the same rank order in both the kindergarten sight word and first grade reading measures. The high correlation implies that although there are other factors that predict first grade reading achievement, sight word recognition must be considered a strong predictor in its own right.

The findings of the study also imply that high sight word recognition in kindergarten aids a student in their reading achievement. Despite having four different first grade teachers, 19 out of 20 students still remained in the same hierarchy of achievement between kindergarten and first grade. These results suggest that the sight word recognition contributed to the reading ability of the students.

The students who could recognize many words in kindergarten were able to utilize their sight word knowledge as a basis for reading in first grade. Because the students did not have to pause to read common words, their reading was fluent. In fact, the analysis of better readers' miscues showed that they almost always read sight words correctly. They made higher level miscues that made sense in the context of what they were reading. The miscues that they did make were in decoding less

common words with multiple syllables. Since many of the texts contained a high number of sight words, the students who knew a high number of sight words were able to progress through each of the first grade reading levels with 90-95% accuracy.

Students who struggled with learning sight words in kindergarten lagged behind in reading achievement in first grade. These students continued to have a limited sight word vocabulary compared to their peers. These students made miscues on many words that appeared on the *Dolch List*. Their reading was word by word, making it difficult for them to use context to help them read. As a result, these students struggled with beginning level first grade texts.

One reason the results might have been so highly correlated is that the data for first grade reading achievement were collected in December. Perhaps if the data had been collected in May the results might have been different. The correlation might not be as high if students who were struggling readings in December had had a chance to close the reading gap with five more months of instruction. Similarly, the higher achieving students might have peaked at some point during the school year as the reading levels became more complex. However, it is conceivable that the

correlation would remain the same if students progressed at a similar rate as they had up until December.

There are other factors that may have contributed to the high correlation. The high achieving readers could have had a higher oral receptive vocabulary than the lower achieving readers. Another variable is that the higher achieving readers might have more help at home than the lower achieving readers.

Implications for the Classroom

The high level of correlation between kindergarten sight word recognition and first grade reading in this study indicates that there are significant implications for the classroom. Traditionally there has been little emphasis on systematically teaching sight words to kindergartners. The implications of this study suggest that that a greater emphasis should be put on teaching sight words to kindergartners.

Teaching sight words to kindergartners was one factor in the high level of achievement for the 20 subjects in this study. Gunning (1998) estimates that 25% of American students have some difficulty with reading. By December in first grade 17 out of 20 (85%) were reading

within the first grade benchmark or higher. Also, 5 out of 20 students were beginning to read within the second grade benchmark for reading level. Kindergarten must consider the positive results of emphasizing sight words as they make choices about what to teach.

Educators need to continue to try to help their students meet higher standards. One method of doing this is by believing that most kindergarten students can learn to recognize a significant amount of sight words. Kindergarten teachers must not make assumptions about what kindergartners can cognitively handle without experimenting with higher expectations on what they can learn. Kindergarten students need to be given tools, such as a functional sight word vocabulary, to help them meet the high standards of first grade and above.

Educators must make choices about what to emphasize in their language arts program. Phonics, phonemic awareness, comprehension, and language development are integral parts of a balanced language arts program. However, a functional sight word vocabulary should be added to a balanced language arts program to enhance a student's ability for reading success in first grade.

Once a comprehensive system of teaching sight words has been implemented in a kindergarten classroom, sight word recognition can be

used as a tool to help identify students who might struggle with reading in first grade. In this study, the three students who tested below a first grade reading level recognized the fewest sight words in kindergarten. Students who struggle with learning sight words in kindergarten could be identified as candidates for extra reading support and possible learning disabilities.

Implications for Further Research

The results of this study found a significant correlation between sight word recognition in kindergarten and reading achievement in first grade. However, the study was limited to only 20 subjects in an urban setting. Future research is needed to extend the validity of what was found in this study. The results would become more meaningful if similar studies were done because it would increase the number of subjects. Socioeconomic status of the students in this study might be a factor that would warrant future study.

Since this study only gathered data for reading achievement in December of the first grade year, further research could study the same students longitudinally. Following the same students through the end of first grade and into second grade would provide an avenue to see if the

students who learned the most words in kindergarten would continue to have an advantage in reading achievement as they progress through the primary grades. This would also provide more data, increasing the validity of the study.

Sight word recognition is only one variable that could coordinate with reading achievement in first grade. Letter recognition has been used as a predictor of first grade reading achievement. Further study might compare the correlation of sight word recognition and reading achievement to the correlation of letter recognition and reading achievement.

Another variable that could have an effect on both the sight word recognition of kindergartners and first grade reading achievement of first graders is the level of parental involvement. Further study could examine whether the parent involvement or lack of involvement had a significant effect on the students on both their ability to learn sight words and their reading achievement.

Oral receptive vocabulary has been used as a predictor of reading achievement. Further study could examine whether the high achieving students in both sight word recognition and reading achievement excelled because of a higher cognitive aptitude. Tests like the Peabody Picture

Vocabulary Test could be used to help compare the correlation of sight word recognition and reading achievement to the correlation of oral receptive vocabulary and reading achievement.

Appendix A**Kindergarten Sight Word List**

a	in	red	came
am	is	said	come
are	I	three	do
big	ran	two	did
be	jump	too	down
brown	little	the	find
blue	love	this	for
black	like	want	funny
cat	mom	we	good
can	my	white	get
dad	no	yes	his
dog	one	yellow	he
five	orange	as	help
four	put	ate	here
go	play	and	it
green	purple	but	into
have	pink	all	look

me	what	today
make	who	Saturday
not	boy	Tuesday
of	so	yesterday
on	girl	Friday
our	she	Monday
run	Mr.	tomorrow
see	say	Thursday
that	Mrs.	
to	look	
up	was	
with	please	
where	news	
you	ride	
out	pretty	
saw	now	
soon	will	
there	under	
well	Sunday	
went	Wednesday	

Appendix B

Grade Level Equivalency Chart

Book Level Equivalence Chart¹

	Grade	Classroom Level ²	Basal Level	Reading Recovery
Emergent	Kindergarten	A	Readiness	1
	Grade One			
Early	Kindergarten	B		2
	Grade One			
	Kindergarten	C	PP1	3 & 4
	Grade One			
	Grade One	D	PP2	5 & 6
	Grade One			
	Grade One	E	PP3	7 & 8
	Grade One			
	Grade One	F	Primer	9 & 10
	Grade One			
	Grade One	G		11 & 12
	Grade One			
Transitional	Grade One	H	Grade One	13 & 14
	Grade One			
	Grade One	I		15, 16, 17
	Grade Two			
	Grade Two	J	Grade Two	18, 19, 20
	Grade Two			
	Grade Two	K		
	Grade Two	L		
	Grade Two	M		
	Grade Three			
Self-extending	Grade Three	N	Grade Three	
	Grade Three			
	Grade Three	O		
	Grade Three	P		
	Grade Four	Q	Grade Four	
	Grade Four			
	Grade Four	R		
	Grade Four			
Advanced	Grade Four	S		

¹All levels and equivalencies are approximations and are subject to revision.

²Source: Fountas and Pinnell 1996.

(Fountas & Pinnell, 1999, p. 26)

Appendix C

Descriptors of the Alphabetic Levels

levels, provided examples of page layouts for books on each level, and listed behaviors to notice and support for each level.

Here, we provide a level-by-level description of the books on this list. No description can fully capture every book included in a level, but these summaries should guide you in leveling new books as you acquire them.

Level A

The collection in level A provides the very easiest books for young children to read. We begin using level A books for guided reading after children have participated in unison reading of enlarged texts, heard many stories read aloud, tried writing for themselves, and become familiar with print. Before you begin guided reading, gather some evidence that children have some basic understandings about written language (for example, that you read the print rather than the pictures and that you begin on the left and move to the right). Be sure that they can point to words along a simple line of print—perhaps three or four words—in a familiar text.

Children do not need to have full control of basic concepts about print, nor do they need to know all of the names of the alphabet letters and related sounds before they begin to read the simple books on level A. They will learn a great deal more as they read these simple books.

Most level A books have only one line of print and just a few words in the line. This feature enables young children to focus on the print and read left to right, gradually increasing their knowledge of a few high-frequency words such as *I*, *the*, or *is*. In general, these books feature easy-to-see print with ample space between words. It is important that the letters are clear and that it is easy to notice the individual words. Be careful of books in which the print is bold or thick, with letters that are close together and little space between words. Be equally careful of books with thin letters set close together. Those styles of print make it hard for children to discern the word. The font size should be

large, but not so large that it is hard to see the whole word at once. Below are examples of appropriate font sizes.

Here comes the bus.
Here comes the bus.
Here comes the bus.

The sentence structure in level A books is very close to children's own natural language and sentences are not too long. Children have to be able to understand and hold in their heads the meaning of the whole sentence while at the same time pointing at the words, moving left to right, and recognizing and checking words. Many of the books are about eight pages.

The language of the text in many books consists of a repeating pattern, using the same words over and over again or building several different ideas using the same sentence structure. Most of the words are very easy high-frequency words (*a*, *the*, *an*, *is*) and/or content words that are cued by the pictures. Print placement is highly consistent. For example, some books have print always on the left page with the picture on the right. Others have print appearing always at the bottom of the page.

There is a clear distinction between print and pictures, so that children can easily find the place to read. Simple punctuation is used, including periods, question marks, and exclamation points. Since there are few lists, commas do not appear often. The pictures provide a very high level of support, illustrating almost precisely the meaning of the text. Books focus on topics that are very familiar to most children. Often, these books are built around a single idea. The books provide an easy, supportive context within which children can practice their early reading behaviors.

Level B

Level B books are similar to level A in that they provide a context for practicing early reading behaviors, but the task is slightly more challenging. Like level A, books tend

to focus on a single idea or present a simple story line. They feature clear, easy-to-read print (similar font to A) with noticeable spaces between words. For the most part, level B books contain two or more lines of print, so readers are required to sweep back to the left after reading a line.

Sentences are longer; however, natural language patterns are present to support the reader. Books may have repeating words or sentence patterns, although more variety is observed than in level A. Simple punctuation, including more commas, is used. Very simple dialogue may be included (for example, "I am here," said Mom.). There is a direct correspondence between text and pictures; and, like level A, topics are generally very familiar to most children. Sentences include more easy high-frequency words and some words with *ing*, *ed*, and *s* endings. The characters in books are family members, friends, or people who would be familiar to children. Animal characters behave very much like people. Stories are set in the "here and now;" setting is suggested but seldom important to the plot. Stories are straightforward, not requiring interpretation, and tend to be a string of events or actions rather than story episodes.

Benchmark: We would expect almost all kindergarten children to be able to read, with control of early behaviors, level B books by the end of the school year.

Level C

Books at level C present simple story lines or topics that are, in general, familiar for most children. Familiar topics are explored in a variety of ways that offer new viewpoints to the reader. Stories are longer with more action; there are still very few characters. Characters and story plots are straightforward and require little interpretation. Characters tend not to change or develop during the short story.

While most books are about children, families, and everyday life, there are also an-

imal fantasies and books that we would call "experiential." These books are the precursor of information books because they deal with the events and artifacts of everyday life (for example, animals at the zoo), but they do not require the reader to learn some new piece or body of information.

Sentences are longer and may include some embedded clauses. Some sentences are conjoined using *and*. Dialogue is frequently included, and punctuation reflects more complex sentence structure, to include all ending marks, quotation marks, and commas. Some books have repeating language patterns; others do not. There is more variation among the texts. At level C, children are required to pay closer attention to print because the patterns they encounter are too complex for them to simply remember in two or even three readings. There are more words and more lines of print on each page so the text requires more time to read.

There will be some compound words (*into*, *something*, etc.) as well as many easy high-frequency words. Some words have endings such as *ing* and *s*. Print is still in a clear, readable font with noticeable spaces between words. Most books are still about eight pages, but the number of words on a page has greatly increased.

Illustrations provide a high level of meaning support to the reader but there are many more words to be solved. Children cannot depend on illustrations or sentence pattern to read the book with accuracy. There is opportunity to encounter, notice, and solve words with regular spelling patterns.

Level D

Books at level D include slightly longer and more complex stories than at previous levels. For example, there may be several elaborate episodes within a simple plot line. Topics are generally familiar to most children, but some books include abstract or unfamiliar ideas. Language structures may vary from natural sounding language to phrases with a literary quality. It is not uncommon for texts to con-

tain compound sentences, usually conjoined by *and*.

Text layout is easy to follow. Since there is more printed text, there is a greater variety in the size of print, with some books using smaller fonts. It is still important to evaluate the clarity of the print and layout. Some texts include sentences that are carried over to the next page or over several pages. Interesting new punctuation may appear, such as dashes or ellipses (. . .). Illustrations are supportive but they are moving to a new role—that of enhancing and extending meaning rather than providing all or most of the information needed. In most books, however, the illustrations are still important.

Texts have a large number of easy, high-frequency words as well as words that have a variety of inflectional endings (*ed, ing, s, es*), and there are more compound words and multisyllable words. A greater variety of high-frequency words is included. There are more opportunities to solve words using regular spelling patterns. Many books are longer, ranging from about ten to twenty pages.

Level E

At level E, texts introduce more complex language and ideas. Topics range beyond the familiar and the types of text may include realistic stories, fantasy, and very simple informational books. It is best to be careful that informational books do not introduce too much technical vocabulary because it is difficult for children to use reading to learn new content while still developing a beginning reading process. For example, learning the technical names for parts of flowers or leaves may make a seemingly easy book quite difficult.

Sentences include more embedded phrases and clauses and there is more variety in language. Literary language is common. Books are generally longer, with either more pages or more lines of text on each page. The placement of print ranges widely from smaller fonts to print about the size of

level A. It is still important to be sure that the print is not too small, but readers can tolerate much more variety. Most books range from ten to twenty pages. Shorter books (about eight pages) with a great deal of print on the page may be more difficult for readers.

The text structure for most books is more complex, with stories that often have several simple but repeated episodes. Picture support is moderate. Books have more characters, and, although characters do not develop a great deal, readers may be called on to empathize with them or learn what they are like.

The number of words and lines of print generally increases, as does the variety of high-frequency words. There is frequent use of dialogue and a full range of punctuation. The vocabulary is more interesting; some books introduce less-regular spelling patterns and have more multisyllable words.

Level F

Books at level F require close attention to print and sustaining meaning over longer texts. Most books range from ten to thirty pages. The language reflects patterns that are more characteristic of written language than spoken language. A full range of punctuation is presented and used to enhance meaning. Concepts are more distant from local knowledge or the everyday world. Themes of books include realistic stories of everyday life, human and animal fantasy, simple folktales, and some very simple informational books. In general, children at this level are not yet ready to read biographies or histories because of the time concepts and background information required.

The variety of high-frequency words expands and there is greater variety in vocabulary. Texts are slightly longer by including longer sentences and/or more lines on a page. Some texts may be short but have unusual language patterns or technical words, thus making them more difficult than earlier levels. Some texts have abstract ideas that will require discussion.

Level G

Up to this point in the gradient, many texts have had repeating language patterns, at least in some parts of the text. Level G offers little support through repetition, although there will be some repeating episodes that support the reader in predicting what will happen next.

Texts, in general, have several episodes and a variety of characters. Characters require more understanding and their actions require interpretation. Sentences are longer, with many embedded clauses. There are many easy high-frequency words; a larger number of more difficult high-frequency words is introduced. There are opportunities to solve words with regular spelling patterns and there are the challenges of many words with irregular patterns. A greater quantity of multisyllable words is noticeable.

Books offer challenge in ideas and vocabulary; some include technical words or language that is specific to a place or process (such as fishing or cooking).

Books at level G exhibit a much greater variety of styles of print and text layout. Spacing and font are not critical issues since most children will have achieved control of early strategies; however, it is always helpful to have clear, readable text. Illustrations support and extend the meaning but the story line is completely carried by the text. Since texts are longer, readers are required to remember information and action over a longer reading time.

Level H

At level H, readers are required to apply skills to read longer and more varied texts. The content of texts moves away from highly familiar experiences, although children still enjoy reading longer texts that relate to their own lives. The size and placement of print varies widely and calls for flexibility on the part of readers.

Stories are long (from ten to thirty pages) unless they are short texts with difficult content. Font size varies, but because

there are more lines of text, layout becomes important in helping the reader. For example, many texts feature new sentences starting on the left margin.

Many texts feature literary language and text structure; some have poetic language. Texts offer a greater range of vocabulary, including frequent use of multisyllable words and a large number of the full range of high-frequency words. The featured events and language structures of each text are not repetitive, although, as in level G, there may be repeating episodes or events. Picture support is moderate but is still important to enhance meaning and arouse interest. Pictures appear on most pages of the texts.

Most of the books at level H can be categorized as realistic fiction, fantasy, folktales, and informational books that present content that is either within children's experience or adds only a little new information. Characters in stories tend to learn and change; events require interpretation.

Level I

Most books at level I can still be categorized as narrative, although there are more informational books. In general, informational texts are shorter because the content is more difficult. The list of books includes realistic fiction, fantasy, and folktales.

For narratives, there is usually one main plot with a solution. The episodes or events in the text are more highly elaborated, and there are multiple events to understand and follow. Characters and story events require interpretation and offer an interesting focus for discussion.

Books are about the same as levels G and H, but the font size is generally smaller and there are more words on each page. Some books are a little longer, for example thirty to forty pages. Layout varies widely, and there are some texts that have unusual layout features such as maps and charts. Texts use a great deal of dialogue, which is clearly indicated by the identification of speakers and sometimes by spaces between

speakers. Sometimes, for texts with many lines of print, new sentences begin on the left margin. Others are signaled by clear spaces after a period or other ending punctuation within a line.

Illustrations enhance meaning but provide little support for precise word solving and meaning. There are still illustrations on almost every page. Complex word solving is required; texts have more multisyllable words and these are embedded within longer sentences and paragraphs. At level I, readers are making the transition to texts that may call for sustaining interest and meaning over several reading periods. There may be a few "chapter-like" books.

Benchmark: At the end of the year, we would expect almost all first graders to be able to independently read, with understanding and fluency, books at level I.

Level J

Stories at level J have characteristics similar to level I but texts are generally longer. Some books are over fifty pages. At this level, children will experience reading their first chapter books. They will begin to meet characters in series books that will expand their interest in reading and the amount of time they spend reading.

Books contain a great deal of dialogue. Speakers are usually identified and there may be spaces between speakers. A full range of punctuation is present and there are many longer and more complex sentences. Many adjectives and adverbs are included, which makes sentences more complicated and requires more interpretation on the part of the reader.

Most books have one main plot with several episodes that take place at different points in time, although most books or chapters in books cover the period of only one day. Word solving requires automatic recognition of a large number of words and quick solving of new words, including words with three or four syllables.

Types of books include realistic fiction, fantasy, and informational texts. For guided reading, be cautious about using a large number of informational texts that are short but very difficult in content. At level J, children need the opportunity to process a large number of longer texts.

Level K

Level K includes longer, slightly more complex chapter books with more characters. Books are usually between fifteen and seventy-five pages long. Some shorter books are placed at this level because of difficult vocabulary, challenging content, or more complex themes. Types of books include realistic fiction, fantasy, and informational texts. Children may read some historical fiction that does not require extensive background to understand. Some fables or legends may also be included. Informational books may contain technical language and harder vocabulary words. Themes may require readers to understand concepts that are well outside their own experiences. Readers will also be required to deal with different writers' styles. Stories in level K have multiple episodes related to a single plot but may cover a longer time period.

The variety of vocabulary continues to expand, and at this level, children will be encountering words that they do not usually use in their spoken language. They will also be exploring the various connotations of words and analyzing language for humor or to discover the varied perspectives of characters.

Texts contain a great deal of dialogue. While speakers are usually identified by name or pronoun, it is not uncommon for several different characters to be talking on one page. The reader is required to follow the dialogue to determine what is going on in the plot.

Texts at level K have illustrations at many places in the text. These are often black and white and children will not need them in order to read the text with high ac-

Appendix D

Benchmark Books

<u>Title</u>	<u>Publisher</u>	<u>Level</u>
The Big Chase	The Wright Group	A
My Birthday Party	Houghton Mifflin	A
Skating	The Wright Group	B
This Tail	The Wright Group	B
Baby Animals	The Wright Group	C
This is My Friend	The Wright Group	C
In the Park	The Wright Group	D
Green Green	Houghton Mifflin	D
Sleepy Bear	The Wright Group	E
Our Cat	The Wright Group	E
My Old Cat and the Computer	The Wright Group	F
Baby Elephant's Sneeze	The Wright Group	F
Too Late	The Wright Group	G
The Hand Me Downs	Houghton Mifflin	G
Bonnie on the Beach	Houghton Mifflin	H
The Hole in Harry's Pocket	Houghton Mifflin	I
My Sloppy Tiger Goes to School	The Wright Group	J
Arthur's Pet Business	Harper Trophy	K

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