

FROM A TO THE: COMPARING YOUNG CHILDREN'S SPOKEN VOCABULARY
TO SIGHT WORD LISTS

A Thesis
by
HANNAH TICKLE

Submitted to the Graduate School
at Appalachian State University
in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE

AUGUST 2017
Department of Communication Sciences & Disorders

FROM A TO THE: COMPARING YOUNG CHILDREN'S SPOKEN VOCABULARY
TO SIGHT WORD LISTS

A Thesis
by
HANNAH TICKLE
AUGUST 2017

APPROVED BY:

Emily Lakey, Ph.D., CCC-SLP
Chairperson, Thesis Committee

Joseph Klein, Ph.D., CCC-SLP
Member, Thesis Committee

Jennifer Van Gilder, M.A., CCC-SLP
Member, Thesis Committee

Dr. Gail Donaldson, Ph.D.
Chairperson, Department of Communication Sciences & Disorders

Max C. Poole, Ph.D.
Dean, Cratis D. Williams School of Graduate Studies

Copyright by Hannah Tickle 2017
All Rights Reserved

Abstract

FROM A TO THE: COMPARING YOUNG CHILDREN'S SPOKEN VOCABULARY TO SIGHT WORD LISTS

Hannah Tickle
B.S., Radford University

Chairperson: Emily Lakey, Ph.D.

High frequency sight words (HFSW) are words that occur frequently in printed text. Reading instruction in the early elementary grades includes HFSWs as a cornerstone for instruction and assessment of beginning reading skills. Academic standards at the local, state and national levels (e.g., Common Core State Standards) include benchmarks related to HFSWs as a measurement of reading achievement for elementary school children. Language comprehension and word recognition are two abilities that are needed before skilled reading can take place; therefore, HFSW lists should reflect children's listening and speaking vocabularies. Two HFSW lists (Dolch and Fry's) are commonly used during the instruction of beginning readers. However, these commonly used sight word lists are often based on outdated or developmentally mismatched sources. In addition, most studies of high-frequency words in children's oral language are decades old.

This study examined whether there were parallels between HFSWs and the oral vocabularies of five- to six-year-old children. Words from 150 conversational language samples were compared to Dolch and Fry's HFSW lists. Percentage of occurrence of each word was derived by comparing both HFSW lists to the words from the conversational

language samples; additionally, for further comparison, words within each list were characterized by parts of speech. Overall, results showed that over half of the words from Dolch and Fry's HFSW list occurred in children's conversational language samples. Furthermore, when each list was sorted by parts of speech, a similar number of words appeared in each category. These findings are further discussed in terms of clinical and research implications.

Acknowledgments

I would like to thank my committee members, Dr. Emily Lakey, Dr. Joseph Klein and Jennifer Van Gilder, for their guidance and dedication throughout this process.

A special thanks to the Systematic Analysis of Language Transcripts (SALT), LLC, for their commitment to future research and the process of eliciting, transcribing, and analyzing language samples. Their resources facilitated this process.

Finally, I would like to thank my family. Without their love and support, I would not be where I am today.

Table of Contents

Abstract.....	iv
Acknowledgments.....	vi
Introduction and Literature Review	1
Method	8
Results.....	10
Discussion.....	12
References.....	17
Appendix A.....	22
Appendix A1.....	23
Appendix A2.....	24
Appendix B.....	25
Appendix C.....	29
Appendix C1.....	33
Appendix C2.....	38
Appendix D.....	42
Appendix D1.....	43
Vita.....	44

Introduction

High frequency sight words (HFSW) are words that occur frequently in printed text. They can comprise up to 60 percent of printed text that children encounter (Broz, Blust, & Bertelsen, 2016). Not surprisingly, direct teaching of HFSW is a cornerstone of reading instruction, which typically begins in a formalized manner in kindergarten or first grade, or around the age of five to six years. By this time, most children can produce all of the sounds used in spoken English and have acquired a spoken vocabulary ranging from 2,100 to 2,600 words (Owens, 1996; Stahl, 1999). When formal instruction in reading and spelling begins, there is little or no emphasis on direct instruction in spoken language. However, research shows that becoming a fluent reader is dependent on oral language ability (Scarborough, 2001). Reading development has been linked to vocabulary development in particular. Therefore, as teachers continue to focus instruction on sight words, it is important for educators to consider whether sight words correlate with the spoken language children are using. This study investigates whether there are parallels between high frequency sight words and the oral vocabulary of five- to six-year old children.

Literature Review

Literacy and Oral Language

Bear (2000) describes literacy as a braid of interwoven threads; the different threads represent the various skills that are essential to literacy. The *literacy braid* begins with the oral language thread, which represents the stories and aural language that children are exposed to. Children's day-to-day experiences introduce them to concepts of reading, orthography, and writing. Scarborough (2001) presents an additional idea of literacy

acquisition in terms of *strands of early literacy development*. In this illustration, language comprehension and word recognition are woven together to form skilled reading.

Background knowledge, vocabulary, language structure, and literacy knowledge are all under the umbrella of language comprehension. Moreover, phonological awareness, decoding, and sight word recognition are all categorized under word recognition skills. In both theoretical frameworks, a child's background linguistic knowledge supports the acquisition of literacy skills. Furthermore, literacy is defined as a language-based skill. Hence, the ability to comprehend a written text will require an increased amount of linguistic knowledge than that needed to understand spoken language (Paul & Norbory, 2012). To become a skilled reader, a child must demonstrate the ability to recognize and comprehend words fluently and accurately (Ouellette, 2006).

High Frequency Sight Words

Sight words are words that a reader recognizes immediately on sight. High frequency words are those that occur frequently in printed text (e.g., the, a, in, with, etc.). When helping young children to acquire an initial set of sight words, teachers typically use readily available lists of high frequency words; these lists typically begin with the words that occur most frequently in print. High frequency words are often used in the instruction of beginning reading with the goal of having young readers memorize the first 200 words or so as a basic foundation for reading proficiency. In this paper, sight word lists will be referred to as high frequency sight words (HFSW).

Various research on HFSWs focuses on the fact that these words are found in a large majority of written text (Dolch, 1936; Fry, 1980; Johns, Edmond, & Mavrogenes, 1977; Nation, 2001). Additionally, research on HFSWs emphasizes that skilled readers are able to

decode words rapidly and fluently (Broz, Blust, & Bertelsen, 2016; Denton & Al Otaiba, 2011; Hudson, Pullen, Lane, & Torgesen, 2009). In 2000, the National Reading Panel analyzed the efficacy of approaches to literacy instruction. The National Reading Panel (2000) includes HFSWs in their research on evidence-based reading instruction as a component in multiple approaches (e.g., phonemic awareness, phonics instruction, and vocabulary instruction). Sight words were also found to be an important component in the instruction of reading for children with reading difficulties, as well as for children who have Autism, dyslexia, and intellectual disabilities (McArthur, Castles, Kohnen, Larsen, Jones, Anandakumar, & Banales, 2015; Spector, 2011; Yaw, Skinner, Parkhurst, Taylor, Booher, & Chambers, 2011). One meta-analysis and review of sight word research found that the instruction of HFSW was beneficial for functional activities of daily living for adults with mild to severe intellectual disabilities (Browder & Yan Ping, 1998).

In 2009, the Common Core State Standards (CCSS) Initiative developed a set of educational standards that set learning goals for students at each grade level (K-12). Included within the list of foundational skills for reading in kindergarten was the ability to read common high-frequency words by sight (CCSS.ELA-LITERACY.RF.K.3.C.). Two of the most common sight word lists used are Dolch Sight Word Lists and Fry's Instant Sight Words (Dolch, 1936; Farrell, Osenga, & Hunter, 2013; Fry, 1980). Both Fry and Dolch created high frequency word corpuses that are still used today in the instruction of reading fluency. The two lists are similar and will be discussed in detail.

Teachers use sight words under the assumption that high frequency words are also “high utility”; that is, a word that is often encountered by children in text or a word with pedagogical value. In addition, automatic recognition of sight words helps students focus on

meaning and decoding while participating in phonics instruction (Otto & Chester, 1972). Sight words are introduced in various sequences and require memorization in order to achieve automatic recognition. In return, this achievement lightens the burden of decoding, thereby increasing fluency. When sight words are taught, an assumption is made that children have already encountered these words in their day-to-day linguistic experiences; therefore, they should have the ability to understand and comprehend the linguistic information conveyed by those words (Gray & Hui-Chun, 2015). Ehri (2005) states, “If readers know words by sight and can recognize them automatically...then word reading operates unconsciously...if readers attempt to decode words, to analogize, or to predict words, their attention is shifted from the text to the word itself... [disrupting] comprehension, at least momentarily” (p.170).

Clinical Implications

In 2001, the American Speech-Language Hearing Association (ASHA) ad hoc committee on reading and written language disorders developed guidelines for the roles and responsibilities of speech-language pathologists (SLPs) with respect to reading and writing in children and adolescents. These guidelines state that SLPs have a direct role in the development of literacy. ASHA (2001) identifies the roles and responsibilities of SLPs as: identifying children at risk for reading and writing problems; providing intervention for reading; and, assuming other roles, such as providing additional assistance to other educators or students. SLPs typically practice literacy intervention in a school setting with collaborators who specialize in reading instruction. As part of this instruction, HFSW lists are often taught in general education classrooms as well as special education classrooms.

The specific ways in which SLPs participate in literacy instruction vary greatly across

settings and are influenced by individual practitioners' competency with this area of practice. Across a continuum of service provision, some SLPs provide ancillary instruction that supports reading and spelling development, such as phonological awareness activities or vocabulary development, while others may independently implement specific reading instruction. For example, in addition to teaching HFSW, SLPs may provide direction instruction of grammatical structure, or syntax. Syntax refers to the rules that govern how sounds, syllables, and words can be combined into phrases, clauses, and sentences. The area of syntax can be further defined by syntactic form and syntactic function. Syntactic function is defined as the role a word takes relative to its role in the sentence or phrase. Syntactic form is denoted as the grammatical category that a word fits into. A word's syntactic form is independent of its role in a sentence (Justice & Ezell, 2008; Shapiro, 1997). Justice & Ezell use the terms syntactic form and "parts of speech" (e.g., noun, pronoun, verb, determiner) synonymously. In this study, syntactic form will be referred to as "parts of speech." Regardless of the level of participation in literacy instruction, it is beneficial for SLPs to understand the nature of the relationship between HFSW and spoken vocabulary in order to provide literacy instruction to children with language delays or disorders and to collaborate with classroom teachers and other school personnel.

Comparison of Dolch and Fry's Sight Words

Dolch's sight word list, developed in 1936, was derived from two earlier sight word lists (Gates, 1926; Wheeler & Howler, 1930) and the spoken language norms collected in 1928 by the Child Study Committee of the Internal Kindergarten Union. Dolch's HFSW list of 220 words is comprised of various parts of speech; however, it does not contain nouns. Dolch reasoned that nouns were too content specific and, therefore, chose not to include them

in his HFSW list (Farrell et al., 2013).

In 1957, Fry published his first original HFSW list. This list was derived from various word counts that were based on reading and writing materials (Fry, 1957). In 1980, Fry amended his original list by using a word corpus, the American Heritage Word Frequency Book (1971). Fry most recently updated his list, entitled *1000 Instant Words*, in 2000. Fry's HFSW list omits variants (e.g., go-goes-gone) and includes all parts of speech.

The instruction of HFSWs is a cornerstone of reading instruction, with Dolch's and Fry's lists often used as a main source for HFSWs. The two lists are similar in content and both were developed based on secondary sources. When the first 100 words on each list are compared, 70 words appear on both lists (Farrell et al., 2013). However, there are a few differences, the most notable being that Dolch's list does not contain any nouns. Moreover, Dolch collected words that would be common to children in grades K to 2, while Fry collected words common to children in grades 3 to 9. Because many of the words on Dolch's list also appear on Fry's list, the validity of Dolch's list can at least be compared to that of Fry's, recognizing that both sources are dated. In the current study, children's spoken language samples will be compared to Dolch's and Fry's HFSW lists.

Language Samples

Language sampling provides researchers with an overview of a child's speech and language abilities in a contextualized setting. Tomasello and Stahl (2004) suggest that researchers consider the number of children to be observed, length of observation and density of sampling during observation, prior to collection and analysis of children's spontaneous speech. In order to assure that samples are valid and reliable, they should be obtained using conversational tasks and include a minimum of 50 utterances in each sample (Miller,

Andriacchi, & Nockrets, 2016; Pavelko, Owens, Ireland, & Hahs-Vaughn, 2016).

Limitations in Research

There are notable limitations that we can draw from the history of sight words. One important limitation within the available research is that both Dolch's and Fry's sight word lists are out-of-date; likewise, the sources they referenced are even more outdated. Moreover, Dolch only examined one spoken language corpus and Fry did not draw from any spoken language norms. Given the important relationship between oral language and literacy skills, sight words being used should show a correlation with the spoken language that children use. Such an alignment could prevent teaching at a level too high or too low for children who are developing their literacy skills. Hopkins (1979) stated, "if word lists are to be useful there must be evidence that they contain words in children's listening and speaking vocabularies...these are the words that children are likely to use most in reading and writing" (p. 240). There is limited research, however, outlining spoken language norms in children past the ages of 5 years and 5 months (Brown, 1973). This gap in research could be due to a few factors. One complication that arises from analyzing spoken language is the sheer variability or linguistic individualism; that is, as children develop, their language grows and becomes refined towards their interests and environment. Additionally, collecting and analyzing language samples is time consuming and laborious (Nippold, 1995; Preller, 1967; Tomasello & Stahl, 2004).

The present study asks the following questions: (1) What percentage of words, in five- to six-year-old's spontaneous conversational speech, appear on Dolch's and Fry's HFSW lists? (2) What are the similarities and differences, if any, between Dolch and Fry's HFSW list and the words used in conversational language samples?

Method

In order to determine the presence or absence of HFSWs in children's spontaneous speech, lists of words in conversational language samples were compared to two HFSW lists: Dolch's and Fry's. Words from 150 language samples were sorted descendingly by frequency of occurrence. The 220 highest frequency words were chosen for consistency in comparison across lists. The 220 most frequently occurring words from the conversational language samples were compared to Dolch's and Fry's HFSW lists to determine how many words appeared on all three lists. Additionally, the three lists of 220 words were sorted into their represented parts of speech: noun, pronoun, verb, adjective, adverb, conjunction, determiner, negatives/affirmatives, interrogatory words and preposition. Operational definitions for these parts of speech are included in Appendix B.

SALT Language Samples

Systematic Analysis of Language Transcripts (SALT), LLC is a company that promotes the use of language sample analysis through a software program that manages the process of eliciting, transcribing, and analyzing language samples (Heilmann, Miller, & Nockerts, 2010). From the years 1982 to 2002, researchers at SALT collected language samples from typically developing students, ages two years, nine months to 13 years, three months, from Wisconsin and California. These language samples were analyzed through the SALT transcription software and put into a reference database. Language sample databases collected by SALT have proven useful for researchers and clinicians (Heilmann et al., 2010). The students included in the samples are from a variety of economic backgrounds and ability levels. In Wisconsin, students were determined to be typically developing by normal progress in school, as well as the absence of special education services. In California, students were

determined to be typically developing by performance on standardized classroom assessments, teacher reports and the absence of special education services. The spontaneous conversations were elicited from suggested questions and prompts for various topics: classroom activities, holidays, family activities and family pets (“Conversation Database,” n.d.). The present study includes words derived from 150 conversational language samples, each 50 utterances in length.

Procedures

In order to answer the first research question, words in five- to six-year-old children’s spontaneous conversational speech samples were compared to words on Dolch and Fry’s HFSW lists. SALT provided a list of words from 150 different language samples that included at least 50 complete, intelligible and verbal utterances from individual children ages five through six years, five months. The three word lists were sorted descendingly by frequency of occurrence. Then, the 220 highest frequency words were compared across the three lists.

To identify words occurring in spoken language samples and on HFSW lists, words were recorded and tallied if they occurred on the spoken list and also occurred on either HFSW list. Furthermore, any words that did not occur on either HFSW list were also documented and tallied. Finally, any words that occurred on either HFSW list but did not occur within spoken list were also recorded and tallied. A percentage of occurrence was derived from each comparison. The complete list of the most frequently occurring 220 words, including the number of occurrences within the 150 language samples, is provided in Appendix A. The 220 words from Fry’s and Dolch’s HFSW lists are provided in Appendix A1 and A2.

In order to answer the second research question, the HFSW lists and spontaneous conversational samples were categorized by their parts of speech: noun, pronoun, verb, adjective, adverb, conjunction, determiner, negatives/affirmatives, interrogatory words and preposition. The researchers used the following guidelines to categorize each word: (1) word categorization was restricted by the expected use of a beginning reader; (2) a word was limited to three categories; and (3) a word fitting into multiple parts of speech was differentiated by an asterisk. Three licensed SLPs and one SLP graduate student categorized each word from all three lists through consensus agreement, in accordance with the operational definitions and above guidelines. To answer the second research question, the number of words in each part of speech was tallied and compared across the three lists. The total number of words within each part of speech from each list was compared for similarities and differences.

Results

To determine the percentage of words co-occurring between five- to six-year-old's spontaneous conversational speech and HFSW lists (research question 1), the three word lists were compared. Figure 1 illustrates the percentage of words from the spoken list that also appeared on the HFSW lists. A similar percentage of the words from the spoken samples appeared on Dolch's list (63.6%) and Fry's (64.1%) list. However, more than 25% of the 220 most frequently spoken words did not appear on either HFSW list (26.4%). These words can be found in Appendix D and D1.



Figure 1. Percentage of Words from Spoken List on Both HFSW Lists

The second research question asked if there were any similarities or differences between the words from Dolch's and Fry's HFSW lists and the words used in the conversational language samples. A complete categorization by parts of speech can be found in Appendix C, C1, and C2. As shown in Table 1, when the spoken list was compared to Fry's HFSW list, they were found to contain a similar number of adjectives, prepositions, pronouns, conjunctions, negatives/affirmatives, and interrogatory words. Fry's HFSW list contained 8 fewer nouns, 6 fewer adverbs, 7 fewer determiners, and 7 more verbs. Dolch's HFSW list contained a similar amount of prepositions, pronouns, conjunctions, determiners, negative/affirmatives, and interrogatory words. Dolch's HFSW list contained 41 fewer nouns, 9 fewer adverbs, 27 more verbs, and 7 more adjectives. The number of nouns and verbs appearing within Dolch's HFSW list varied more than other categories, and this was expected because Dolch's HFSW list does not include nouns; however, Dolch's list did contain words that could function as nouns under various parts of speech. When the two

HFSW lists were categorized by parts of speech, several words fell within multiple categories. Of the words from Dolch’s HFSW list, 32.3% of were categorized in two or more parts of speech, while 35.9% of words from Fry’s HFSW list were categorized in two or more parts of speech.

Table 1. Total Number of Words Categorized in Each Part of Speech

Part of Speech	Fry’s HFSW List	Dolch’s HFSW List	Spoken Word List
Noun	57	24	65
Verb	75	95	68
Adjective	24	34	27
Adverb	50	47	56
Preposition	27	24	22
Pronoun	22	23	23
Conjunction	15	15	13
Determiner	25	30	32
Negative/Affirmative	2	3	4
Interrogatory Words	7	7	4
Other	2	2	3

Discussion

The purpose of this study was to determine (1) the percentage of words that co-occur between Dolch’s and Fry’s HFSW lists and five- to six-year-old's conversational speech, and (2) whether any similarities or differences exist between the two frequently used HFSW lists and the spoken language of young children. Results showed that a majority of words (over 60%) on both HFSW lists were represented in children’s conversational language samples, and a similar percentage of words from each HFSW list were present on the list of the 220

most frequently used words in conversational samples. This finding may reinforce the value of existing HFSW lists for beginning reading instruction. Additionally, around 30% of words from each HFSW list were categorized in multiple parts of speech. Therefore, words from both HFSW lists are used by children, and can be used in various parts of speech. As past research found, a word list is most useful if it is comprised of words that are considered “high utility,” or often encountered by children (Hopkins, 1979; Otto & Chester, 1972).

To answer the second research question, each list was categorized by its part of speech in order to determine if any similarities or differences existed between children’s spoken language and the two HFSW lists. Results from the categorization showed that each list contained fewer nouns and more verbs than the spoken word list. Additionally, Fry’s HFSW list contained less adverbs and determiners than the spoken language list, and Dolch’s HFSW list contained more adjectives and fewer adverbs. Therefore, young children seem to be using more nouns in their speech than are represented in the HFSW lists. Moreover, a majority of the 26.4% of words from the spoken list that did not appear on either HFSW list could be considered nouns under various contexts. Overall, the two HFSW lists contained more verbs, prepositions, conjunctions, and interrogatory words, and fewer nouns and adverbs, than did the spoken sample.

Clinical Implications

Research shows that the beginning acquisition of literacy requires a background of linguistic knowledge, such as language comprehension and spoken vocabulary (Bear, 2000; Ouellette, 2006; Paul & Norbury, 2012; Scarborough, 2001). Young children who lack this linguistic foundation are at a high risk for later difficulty with reading, writing and spelling. SLPs provide direct services in the assessment and intervention of spoken language

disorders. Their involvement in written language instruction; however, can range across a wide continuum depending on their clinical expertise and their role as defined by their workplace setting. Whether an SLP is providing literacy instruction or support through direct intervention or in coordination with an interdisciplinary team, HFSW lists will often be encountered. The results of this study highlight important clinical implications for SLPs and educators who work with young children.

SLPs can use their specialized knowledge of language when collaborating with other professionals and caregivers in order to form a more holistic approach to language and literacy intervention, particularly for young children who have speech-language impairments. As this study showed, there are a number of words on HFSW lists that are not a part of young children's spoken language. Therefore, the meaning and function of HFSWs that are not typically used by children may need to be explicitly taught. In addition to learning how to read these words, a child may need linguistic experience with using unfamiliar words, particularly those that can have multiple meanings or functions. For example, the word *watch* can be used as a noun and a verb. A child can memorize the word to recognize it in print, but may only understand it to be a verb, which could affect comprehension. Additionally, children should read HFSWs in functional sentences and materials to ensure multiple and meaningful exposures to unfamiliar words. This direct instruction will insure that the HFSWs being taught are understood and comprehended. As Gray and Hui-Chun (2015) state, children must understand and comprehend the linguistic information that HFSWs convey in order for HFSWs to be useful. Subsequently, with direct instruction in unfamiliar words, children will obtain the background knowledge needed to support reading fluency and comprehension (Otto & Chester, 1972).

Limitations of Present Study

The present study used information from a large number of spoken language samples; however, the specific context of the words included in the samples was unknown. Context is an important consideration when obtaining and analyzing language samples (Pavelko et al., 2016). The lack of context caused complications during the categorization of words according to parts of speech. For example, the word *play* could be categorized as both a noun and a verb; without context, it was impossible to know how the child used the word in the SALT language samples. Another limitation in the study was the age of the SALT samples. The language samples provided were acquired between the years 1982 and 2002, making the language samples 15 to 35 years old. Spoken language changes over time, with words falling in and out of favor and new words being created. The spoken language of young children from 1982 may be different from that of present-day young children. Lastly, only 220 words from all three lists were compared because Dolch's list contains only 220 words. Dolch's separate noun list was not used in the analysis or comparison.

Implications for Future Research

While a large percentage of words from the conversational language samples were found within the HFSW lists, a quarter of the words were not represented on either list. Additionally, only Dolch's HFSW list included a source from spoken language samples. However, the spoken language samples that Dolch referenced were obtained in the 1920s, making them very outdated (Dolch, 1936). Therefore, future researchers may consider a focus on creating an updated HFSW lists using a variety of up-to-date sources (i.e., spoken language norms, current texts used by young children, etc.). Additionally, considering that

the SALT language samples were collected between 1982 and 2002, a collection of current language samples would be beneficial.

Lastly, while it is apparent that HFSW lists are widely used and implemented during the primary instruction of reading, there is limited research on the hierarchy of instruction. Researchers may focus on systematic instruction of HFSW using a developmental framework. This would assure the most appropriate, adequate, and beneficial implementation for beginning readers.

Overall, HFSW lists are accepted to be beneficial to the beginning reader in order to increase reading fluency and lighten the burden of decoding. The results from this study reinforce the value of HFSW lists, while also highlighting potential areas of future research for literacy instruction. SLPs may provide literacy intervention through direction instruction or as part of an interdisciplinary team. In either circumstance, the knowledge of literacy development and syntax is a fundamental part of instruction.

References

- American Speech-Language-Hearing Association. (2001). *Roles and responsibilities of speech-language pathologists with respect to reading and writing in children and adolescents* [Position Statement]. Available from <http://www.asha.org/policy>.
- Bear, D. R. (2000). *Words their way: Word study for phonics, vocabulary, and spelling instruction*. Upper Saddle River, N.J.: Merrill.
- Bigg, M. G. (1938). The international kindergarten union word list compared with eight spoken vocabularies. *Child Development*, 9(4), 363.
- Broz, N. A., Blust, E. L., & Bertelsen, C. D. (2016). SWIFT reading: Sight word instruction is fundamental to reading. *Literacy Practice & Research*, 41(3), 38-46.
- Browder, D. M., & Yan Ping, X. (1998). A meta-analysis and review of sight word research and its implications for teaching functional. *Journal of Special Education*, 32(3), 130-153.
- Brown, R. (1973). *A first language: The early stages*. London: George Allen & Unwin.
- Child Study Committee of the International Kindergarten Union. (1982) *A study of the vocabulary of children before entering the first grade*. Baltimore, Maryland: The International Kindergarten Union.
- Conversation Database. (n.d.). Retrieved from http://saltsoftware.com/media/wysiwyg/reference_database/ConRDBDoc.pdf
- Denton, C., & Al Otaiba, S. (2011). Teaching word identification to students with reading difficulties and disabilities. *Focus on Exceptional Children*, 43(7), 1-16.

- Dolch, E. W. (1936). A basic sight word vocabulary. *The Elementary School Journal*, 36(6), 456-460.
- Ehri, L. C. (2005). Learning to read words: Theory, findings, and issues. *Scientific Studies of Reading*, 9(2), 167-188.
- Farrell, L., Osenga, T., & Hunter, M. (2013). Comparing the dolch and fry high frequency word lists. Retrieved from <http://www.readsters.com/wordpress/wp-content/uploads/2013/03/ComparingDolchAndFryLists.pdf>
- Fry, E. (1957). Developing a word list for remedial reading. *Elementary English*, (7), 456-458.
- Fry, E. (1980). The new instant word list. *The Reading Teacher*, 34(3), 284-289.
- Fry, E. (2000). *1000 instant words: The most common words for teaching reading, writing and spelling*. Laguna Beach, CA: Laguna Beach Educational Books.
- Gates, A. I. (1926). A reading vocabulary for the primary grades. New York, NY: Teachers College.
- Gray, S., & Hui-Chun, Y. (2015). Selecting vocabulary words to teach. *Perspectives on Language Learning & Education*, 22(4), 123-130. doi:10.1044/1le22.4.123
- Hayes, C. (2016). The effects of sight word instruction on students' reading abilities (Master's thesis). Retrieved from http://fisherpub.sjfc.edu/cgi/viewcontent.cgi?article=1327&context=education_ETD_masters
- Heilmann, J., Miller, J., & Nockerts, A. (2010). Using language sample databases. *Language, Speech & Hearing Services in Schools*, 41(1), 84-95. doi:0161-1461(2009/08-0075)

- Hopkins, C. J. (1979). The spontaneous oral vocabulary of children in grade 1. *The Elementary School Journal*, (4), 240.
- Hudson, R. F., Pullen, P. C., Lane, H. B., & Torgesen, J. K. (2009). The complex nature of reading fluency: A multidimensional view. *Reading & Writing Quarterly*, 25(1), 4-32.
- Johns, J. L., Edmond, R. M., & Mavrogenes, V. (1977). The dolch basic sight word vocabulary: A replication and validation study. *The Elementary School Journal*, 78(1), 31-37
- Justice, L. M., & Ezell, H. K. (2008). *The syntax handbook: Everything you learned about syntax-- but forgot*. Eau Claire, WI: Thinking Publications.
- McArthur, G., Castles, A., Kohonen, S., Larsen, L., Jones, K., Anandakumar, T., & Banales, E. (2015). Sight word and phonics training in children with dyslexia. *Journal of Learning Disabilities*, 48(4), 391-407.
- Miller, J. F., Andriacchi, K., & Nockerts, A. (2016). Using language sample analysis to assess spoken language production in adolescents. *Language, Speech & Hearing Services in Schools*, 47(2), 99-112. doi:10.1044/2015_LSHSS-15-0051
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge, United Kingdom: Cambridge University Press.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. (NIH Pub. No. 00-4754). Washington, DC: U.S. Department of Health

and Human Services.

- Nippold, M. (1995). Language norms in school-age children and adolescents: an introduction. *Language, Speech & Hearing Services in Schools, 26*(4), 307-308.
- Otto, W., & Chester, R. (1972). Sight words for beginning readers. *The Journal of Educational Research, 65*(10), 435-443. Retrieved from <http://www.jstor.org.wncln.wncln.org/stable/27536333>
- Ouellette, G. P. (2006). What's meaning got to do with it: The role of vocabulary in word reading and reading comprehension. *Journal of Educational Psychology, 98*(3), 554-566. doi:10.1037/0022-0663.98.3.554
- Owens, Jr., R. E. (1996). *Language development: An introduction (fourth edition)*. Boston, MA: Allyn and Bacon.
- Paul, R., & Norbury, C. (2012). *Language disorders from infancy through adolescence: Listening, speaking, reading, writing, and communicating*. St. Louis, Mo: Mosby.
- Pavelko, S. L., Owens Jr., R. E., Ireland, M., & Hahs-Vaughn, D. L. (2016). Use of language sample analysis by school-based slps: Results of a nationwide survey. *Language, Speech & Hearing Services in Schools, 47*(3), 246-258. doi:10.1044/2016_LSHSS-15-0044
- Preller, A. G. (1967). Some problems involved in compiling word frequency lists. *Modern Language Journal, 51*(7), 399-402.
- Scarborough, H. (2001). Connecting early language and literacy to later reading disabilities: Evidence, theory, and practice. In S. B. Neuman & D. K. Dickinson (Eds.)

- Handbook of early literacy* (pp. 97-110). NY: Guilford Press.
- Shapiro, L. (1997). Tutorial: an introduction to syntax. *Journal of Speech, Language & Hearing Research, 40*(2), 254-272.
- Spector, J. E. (2011). Sight word instruction for students with autism: An evaluation of the evidence base. *Journal of Autism and Developmental Disorders, (10)*, 1411.
doi:10.1007/s10803-010-1165-x
- Stahl, S. A. (1999). *Vocabulary development*. Brookline, MA: Brookline Books.
- Tomasello, M., & Stahl, D. (2004). Sampling children's spontaneous speech: How much is enough? *Journal of Child Language, 31*(1), 101-121.
- Wheeler, H. E. & Howell, E. A. (1930). A first grade vocabulary study. *The Elementary School Journal, 31*, 52-60.
- Yaw, J. S., Skinner, C. H., Parkhurst, J., Taylor, C. M., Booher, J., & Chambers, K. (2011). Extending research on a computer-based sight-word reading intervention to a student with autism. *Journal of Behavioral Education, (1)*, 44. doi:10.1007/s10864-010-9118-1

Appendix A

The 220 most frequently occurring words from the SALT conversational language samples.

and	them	out	birthday	tree	start
I	when	cat	eat	where	throw
the	this	make	how	old	car
A	mom	too	say	today	four
my	do	other	toy	around	mean
to	went	does	day	book	never
it	for	really	kind	color	sit
we	just	see	right	door	sleep
yeah	up	are	always	night	still
he	can	grandma	fun	girl	write
you	what	or	cousin	look	call
that	Did	think	kid	away	grade
in	her	down	present	bad	stay
like	so	friend	home	ball	class
she	at	about	outside	boy	die
they	all	be	three	else	fish
then	our	stuff	made	real	new
on	little	christmas	their	said	next
have	him	come	give	very	read
one	name	only	water	after	same
was	dad	from	your	even	walk
of	brother	game	now	let	bed
but	had	alot	people	off	card
go	not	if	work	once	different
get	his	take	by	party	guess
play	sister	over	here	these	hard
know	sometime	sometimes	something	white	hold
don't	house	want	would	before	red
got	thing	back	could	candy	santa
is	two	school	long	lot	forgot
with	has	oh	us	those	last
no	some	were	remember	turn	much
well	yes	baby	tell	watch	ride
me	dog	first	grandpa	way	already
because	put	good	guy	black	any
there	time	live	more	pet	open
	big	try	saw	pick	

Appendix A1

The first 220 words from Fry's HFSW list used in comparison and analysis.

the	when	go	live	farm	air
of	your	see	me	three	away
and	can	number	back	small	animal
A	said	no	give	set	house
to	there	way	most	put	point
in	use	could	very	end	page
is	an	people	after	does	letter
you	each	my	thing	another	mother
that	which	than	our	well	answer
it	she	first	just	large	found
he	do	water	name	must	study
was	how	been	good	big	still
for	their	call	sentence	even	learn
on	If	who	man	such	should
are	will	am	think	because	America
as	up	its	say	turn	world
with	other	now	great	here	high
his	about	find	where	why	ever
they	out	long	help	ask	near
I	many	down	through	went	add
at	then	day	much	men	food
be	them	did	before	read	between
this	these	get	line	need	own
have	so	come	right	land	below
from	some	made	too	different	country
or	her	may	mean	home	plant
one	would	part	old	us	last
had	make	over	any	move	school
by	like	new	same	try	father
word	him	sound	tell	kind	keep
but	into	take	boy	hand	tree
not	time	only	follow	picture	never
what	has	little	came	again	start
all	look	Work	want	change	city
were	two	know	show	off	earth
we	more	place	also	play	eye
	write	year	around	spell	

Appendix A2

The 220 words from Dolch's 220 HFSW list used in comparison and analysis

the	am	your	Ran	new	pick
to	then	its	Let	must	hurt
and	little	ride	Help	start	pull
he	down	into	Make	black	cut
a	do	just	Going	white	kind
i	can	blue	Sleep	ten	both
you	could	red	Brown	does	sit
it	when	from	Yellow	bring	which
of	did	good	Five	goes	fall
in	what	any	Six	write	carry
was	so	about	Walk	always	small
said	see	around	Two	drink	under
his	not	want	or	once	read
that	were	don't	Before	soon	why
she	get	how	Eat	made	own
for	them	know	Again	run	found
on	like	right	Play	gave	wash
they	one	put	Who	open	show
but	this	too	Been	has	hot
had	my	got	May	find	because
at	would	take	Stop	only	far
him	me	where	Off	us	live
with	will	every	Never	three	draw
up	yes	pretty	Seven	our	clean
all	big	jump	Eight	better	grow
look	went	green	Cold	hold	best
is	are	four	Today	buy	upon
her	come	away	Fly	funny	these
there	if	old	Myself	warm	sing
some	now	by	round	ate	together
out	long	their	tell	full	please
as	no	here	much	those	thank
be	came	Saw	keep	done	Wish
have	ask	Call	give	use	many
go	very	After	work	fast	shall
we	an	Well	first	say	laugh
	over	Think	try	light	

Appendix B

Operational definitions were developed directly from “The Syntax Handbook: Everything You Learned About Syntax But Forgot” (Justice & Ezell, 2008).

Noun- A word that represents a person, place, thing, or idea (e.g., Henry, Florida, water, freedom)

Pronoun- A word that takes the place of a noun (e.g., *he, she, his, her*); major categories of pronouns include personal, demonstrative, indefinite, relative, and interrogative.

- Personal- pronouns that replace nouns that represent persons or entities.
- Demonstrative- pronouns that demonstrate (e.g., *this, that, these, those*)
- Indefinite- pronouns that have general, unstated referents (e.g., *all, either, nothing, any, every, one, anybody, everyone, other, anyone, everything, several, anything, many, some, both, much, something, each, nobody, such*)
- Relative- these pronouns (1) refer to a noun or a pronoun (2) they embed or conjoin a portion of a sentence to the rest of the sentence via subordination (e.g., *who, what, whoever, whatever, whom, which, whichever, whose, that*)
- Interrogative- these pronouns are used to ask a *wh-* question (e.g., *who, whose, whom, why, what, which*)

Verb- An "action word" in a sentence; describes what is done to a noun or pronoun or describes a state of being or existence.

- Main- serve as the principle descriptor of an action or a state of being (e.g., *walk, eat, stand*)
- Auxiliary- these verbs are conjoined with main verbs to clarify the action of state of being that is depicted by the main verb. They provide information about person,

tense, mood, and so on. (e.g., *am, can, get, is, need, was, are, could, had, may, ought, were, be, do, has, might, shall, will, been, did, have, must, should, would, need*)

Adjective- A type of modifier that describes a noun or a pronoun (e.g., *The long and winding road is the famous Deadman's Drive*); can be descriptive of limiting.

- Descriptive- this type of adjective describes a quality of the noun or pronoun they modify (e.g., *actual, serious, easy, beautiful, foolish, selfless, expensive, influential, excellent, caloric, childlike, frozen*).

Preposition- A word that links a noun or pronoun to another sentence element by expressing direction, location, time, or figurative location (e.g., *about, between, out, above, beyond, over, by, toward, like, near, off, below, up, with, before, toward*)

Conjunction- A word or words that serve to join other words, phrases, and clauses; is generally one of the three classes: coordinating, subordinating, or correlative

- Coordinating- A conjunction used to join two independent clauses such that each has equal weight and importance (i.e., *for, and, nor, but, or, yet, and so*)
- Subordinating- A conjunction used to connect a dependent clause with an independent clause (e.g., *after, although, when, as, if, where, why, while, that, though, until*)
- Correlative- A conjunction that is typically used as one in a pair (e.g., *both/and, either/or, neither/nor, as/as*)
- Conjunctive adverbs- adverb that connects two or more independent clauses (e.g., *also, further, still, then, rather*)

Determiner- A modifier that clarifies aspects of a noun; major categories include: articles, possessive pronouns and nouns, demonstratives, quantifiers, and *wh-* words.

- Article- refer to specific, or non-specific, entities (e.g., *a, an, the*)
- Demonstrative- refer to entities close to, or further away from, the speaker (e.g., *that, this, these, those*)
- Quantifiers- words that provide additional information regarding quantity (e.g., *all, any, both, every, first, each, either, few, less, three, no, some, more, most*)
- Wh- words- *wh-* words that can modify a noun or pronoun (e.g., *what, which, whose, whatever, whichever*)

Negative/Affirmative- adverbs used to express agreement or denial (e.g., *certainly, yes, absolutely, indeed*) (*never, not, no*)

Adverb- A class of modifiers that provides information about verbs, adjectives, and other adverbs (e.g., *here, really, slowly*); provides information about place, manner, time, degree, reason, number, affirmation, and negation.

- Manner- these adverbs answer the questions *how?* And *In what way?*; they also indicate aspects of quality (e.g., *quickly, particularly, well*)
- Place- these adverbs answer the question *Where?* (e.g., *here, near, outside*)
- Time- these adverbs provide information related to duration and frequency of events (e.g., *before, immediately, once*)
- Degree- these adverbs are used to answer the questions *How much?* (e.g., *more, nearly, very*)
- Number- these adverbs provide information about the order of events (e.g., *first, secondly, seventh*)
- Reason- these adverbs are used to answer the questions *Why? What was the cause?* (e.g., *because, consequently, since*)

- Affirmation- these adverbs express agreement, approval, or assent (e.g., *absolutely, yes, indeed*)
- Negation- these adverbs are often used to indicate denial (e.g., *never, no, not*)
- Conjunctive adverb- adverbs can also serve as conjunctions (e.g., *indeed, also, then, still, therefore*)

Article- One of the determiners (e.g., *a, an, or the*)

Interrogatory Word-

- Interrogative Adjective- A type of limiting adjective that is an interrogative (e.g., *whose, which, what*) serving an adjectival role
- Interrogative Pronoun- A pronoun that is used to ask a *wh-* question

Other- Any word that does not carry semantic meaning

Appendix C

Complete analysis by parts of speech; words with an asterisk indicate occurrence in more than one category.

Guidelines: (1) word categorization was restricted by the expected use of a beginning reader (2) a word was limited to three categories, and (3) a word fitting into multiple parts of speech was differentiated by an asterisk.

Fry's Word Analysis

Nouns	Verbs	Adjectives	Adverbs	Prepositions	Pronouns	Conjunctions	Determiner	Negatives Affirmatives	Interrogatory Words	Other
play*	like*	well*	then	to	I	and	the	no*	when*	well*
well*	have	little*	there	in*	My	but*	a	not	what	here*
can*	was	big	when*	like*	it	because	that		which*	
Name	go	good*	just*	on	We	when*	one		who*	
house	get	right*	up*	of	he	so*	no*		why*	
Thing	play*	long*	so*	with	you	or	this		where*	
time	know	old	all*	for	She	if	just*		how*	
back*	is	still*	out*	up*	they	than*	all*			
day	do	new	too	at	one (that)	after*	little*			

kind*	went	same	other	out*	me	also*	two			
home*	can*	different	down*	down*	them	as*	some			
water*	did	last*	over*	about*	her	before*	first*			
people	had	great*	back*	from	our	how*	your*			
work*	has	high*	how*	over*	him	why*	more*			
tree	make	large	right*	by*	his	where*	these*			
turn*	does	only*	home*	around*	their		much*			
way*	see	own*	now	after*	us		any*			
air	are	small	by*	off*	these*		an			
America	think	another*	here*	before*	any*		each*			
animal	be	country*	more*	below*	another *		its			
answer*	come	home*	where*	between	who*		many			
boy	take	off*	around*	as*	what*		most			
change*	want	mean*	away	into			three			
city	were	through*	very	near			another*			
country*	live		even*	than*			which*			
earth	try		before*	through*						
end*	say		never	but*						
eye	made		again							
farm	give		also*							
father	water*		as*							
food	work*		each*							
hand*	would		ever							
help*	could		only*							
letter	tell		about*							
line	look		after*							
man	said		any*							

	should									
	show*									
	spell									
	study									
	use									
	will									
	back*									
	hand*									
	land*									
	point									
	kind*									
	end*									

Appendix C1

Complete analysis by parts of speech; words with an asterisk indicate occurrence in more than one category.

Guidelines: (1) word categorization was restricted by the expected use of a beginning reader (2) a word was limited to three categories, and (3) a word fitting into multiple parts of speech was differentiated by an asterisk.

Dolch's Word Analysis

Nouns	Verbs	Adjectives	Adverbs	Prepositions	Pronouns	Conjunctions	Determiner	Negatives Affirmatives	Interrogatory Words	Other
play*	like*	well*	then	to	I	and	the	no*	when*	well*
well*	have	little*	there	in*	my	but*	a	not	what	here*
can*	was	big	when*	like*	it	because	that	yes	which*	
kind*	go	good*	just*	on	we	when*	one		who*	
work*	get	right*	up*	of	he	so*	no*		why*	
sleep*	play*	long*	so*	with	you	or	this		where*	
ride*	know	old	all*	for	she	if	just*		how*	
cut*	don't	white	out*	up*	they	once*	all*			
drink*	got	black	too	at	one (that)	after*	little*			

fall*	is	new	down*	out*	me	as*	two			
fly*	do	red	over*	down*	them	before*	some			
help*	went	open*	how*	about*	her	both*	first*			
light*	can*	best*	right*	from	our	how*	three			
show*	did	better*	always	over*	him	why*	your			
call*	had	blue	now	by*	his	where*	these*			
cold*	has	brown	by*	around*	their		those*			
long*	put	clean*	here*	after*	us		four			
saw*	make	cold*	where*	off*	these*		much*			
start*	does	done*	today	before*	those*		any*			
walk*	see	fast*	around*	into	any*		an			
jump*	are	full	away	under	myself		both*			
may*	think	funny	very	upon	who*		eight			
wash*	be	green	once*	as*	what*		every			
wish*	come	hot*	before*	but*			five			
	take	only*	never				its			
	want	own*	again				many			
	were	pretty*	as*				seven			
	live	round	best*				six			
	try	small	fast*				ten			
	eat	warm*	far				which*			
	say	yellow	only*							
	made	fall*	please							
	give	off*	soon							
	work*	hurt*	together							
	would		about*							
	could		after*							

	wash*									
	will									
	wish*									
	done*									
	kind*									

Appendix C2

Complete analysis by parts of speech; words with an asterisk indicate occurrence in more than one category.

Guidelines: (1) word categorization was restricted by the expected use of a beginning reader (2) a word was limited to three categories, and (3) a word fitting into multiple parts of speech was differentiated by an asterisk.

Spoken Word Analysis

Nouns	Verbs	Adjectives	Adverbs	Prepositions	Pronouns	Conjunctions	Determiner	Negatives Affirmatives	Interrogatory words	Other
play*	like*	well*	then	to	I	and	the	yeah	when*	well*
well*	have	little*	there	in*	my	but*	a	no*	what*	oh
mom	was	big	just*	like*	it	because	that	not	where*	here*
can*	go	only*	up*	on	we	when*	one	yes	how*	
name	get	good*	so*	of	he	so*	no*			
dad	play*	right*	all*	with	you	or	this			
brother	know	fun*	sometime	for	she	if	just*			
sister	don't	long*	out*	up*	they	once*	all*			
house	got	old	too	at	one (that)	after*	little*			
thing	is	bad*	other	out*	me	before*	two			

dog	do	real*	really	down*	them	how*	some			
time	went	white	down*	about*	her	where*	first*			
cat	can*	black	alot*	from	our	as*	three			
grandma	did	still*	over*	over*	him		your			
friend	had	new	sometimes	outside*	his		more*			
stuff	has	same*	back*	by*	their		these*			
Christmas	put	different	how*	around*	us		those*			
game	make	hard*	right*	after*	these*		four			
back*	does	red	always	off*	those*		much*			
school	see	last*	home*	before*	any*		any*			
baby	are	open*	outside*	as*	something		alot*			
birthday	think	candy*	now	but*	same*		lot*			
toy	be	home*	by*		what*					
day	come	else*	here*							
kind*	take	off*	more*							
fun*	want	mean*	where*							
cousin	were	next*	today							
kid*	live		around*							
present	try		away							
home*	eat		else*							
water*	say		very							
people	made		even*							
work*	give		once*							
grandpa	water*		before*							
guy	work*		never							
tree	would		already							
book	could		about*							

walk*	fish*									
	pet*									
	last*									
	kind*									

Appendix D

Words from the spoken list that did not occur on Fry's HFSW list.

I	Yeah	Don't	Got	Mom
Dad	Brother	Sister	Sometime	Yes
Dog	Cat	Really	Grandma	Friend
Stuff	Christmas	Game	A lot	Sometimes
Oh	Baby	Birthday	Eat	Toy
Always	Fun	Cousin	Kid	Present
Outside	Something	Remember	Grandpa	Guy
Saw	Today	Book	Color	Door
Night	Girl	Bad	Ball	Else
Real	Once	Party	White	Candy
Lot	Those	Watch	Black	Pet
Pick	Throw	Car	Four	Sit
Sleep	Mean	Call	Grade	Stay
Class	Die	Fish	Next	Walk
Bed	Card	Guess	Hard	
Red	Santa	Forgot	Ride	
Open	Let	Already	Hold	

Appendix D1

Words from the spoken list that did not occur on Dolch's HFSW list.

Yeah	Mom	Name	Dad	Brother
Sister	Sometime	Sometimes	House	Thing
Dog	Time	Cat	Other	Really
Grandma	Friend	Stuff	Christmas	Game
A lot	Back	School	Oh	Baby
Birthday	Toy	Day	Fun	Cousin
Kid	Present	Home	Outside	Water
People	Something	Remember	Grandpa	Guy
More	Tree	Book	Color	Door
Night	Girl	Bad	Ball	Boy
Else	Real	Even	Party	Candy
Lot	Turn	Watch	Way	Pet
Throw	Car	Mean	Still	Grade
Stay	Class	Die	Fish	Next
Same	Bed	Card	Different	Guess
Hard	Santa	Forgot	Last	Already

Vita

Hannah Tickle was born in Abingdon, Virginia to Chris Tickle and Jane Vencill. She graduated from Lebanon High School in Lebanon, Virginia in 2012. In December 2015 she was awarded the Bachelor of Science degree in Communication Sciences and Disorders from Radford University. The following spring, she accepted a graduate assistantship in the College of Health Sciences at Appalachian State University and began study toward a Master of Science degree in Speech-Language Pathology. The M.S. was awarded in August 2017.