Alignment with the Common Core

State Standards:

easyCBM K-3 Word Reading

Leilani Sáez

P. Shawn Irvin

Julie Alonzo

Gerald Tindal

University of Oregon

Abstract

Five hundred and seventeen words from the easyCBM Word Reading assessment (*n* = 57 kindergarten, 117 first grade, 172 second grade, and 171 third grade) were examined by 15 teachers for their correspondence with the Common Core State Standards in English Language Arts. In particular, the degree of correspondence between Standard 3 (*Phonics and Word Recognition*) expectations for word reading skill and test word types was analyzed within each grade level. Both the frequency of items matching word type characteristics outlined in Standard 3 and percent of reviewer correct agreement were examined. In general, test items were best aligned with the types of words students should know how to read in kindergarten. Nearly 60% of kindergarten words were identified as containing a long- or short- vowel sound, and approximately 74% were among the 500 most frequent words in print. Results found for the other grades were more mixed. First grade items were most strongly aligned with the expectation that students read regularly spelled one-syllable words, comprising 59.8% of the words reviewed. Second grade items were most strongly aligned with the expectation that students read regularly spelled two syllable words containing long vowels, comprising 55.5% of the words reviewed. Third grade items were weakly aligned with Standard 3 expectations. In general, correct agreement among reviewers varied depending upon the word part characteristic reviewed. The findings highlight the need to examine the extent to which items on student assessments reflect expectations for learning, as outlined by the Common Core State Standards.

Alignment with the Common Core State Standards: easyCBM® K-3 Word Reading

The kindergarten through grade 3 (K-3) easyCBM® Word Reading assessment was developed in 2007 as part of a curriculum-based progress monitoring system, with twenty alternate forms in each grade for measuring word reading fluency (Alonzo & Tindal, 2007). In 2010, the Common Core State Standards (CCSS; Common Core State Standards Initiative, 2012) were introduced as a way to incorporate national standards for assessment and instruction. The CCSS clearly outline what students should know and be able to do at each grade level. This information is beneficial to educators and researchers because it provides a shared platform for constructing common assessment and instructional goals to improve our understanding of what students know and what they need to know. Although the easyCBM® Word Reading assessment was developed prior to the release of the CCSS, we examined the extent to which existing test items correspond with CCSS student skill expectations in an effort to strengthen the link between assessment and instructional aims moving forward.

The easyCBM® Word Reading assessment entails measurement of a single construct (i.e., word reading ability). Students are required to read as many words as possible from a large list within a 60-second time limit, and the total score obtained indicates the number of words read correctly in a minute. Although the quantity of words that students are able to read is clear, the *types* of words that they can read are currently unknown. For each grade level, the CCSS specifies the types of words that students should be able to read (e.g., kindergarten high frequency words, first grade words with common consonant digraphs, second grade words with common vowel teams, and third grade multi-syllabic words). These word types are consistent with instructional aims for gradually increasing word reading and spelling sophistication as

students move from beginning to advanced readers (Henry, 2003; Pinnell & Fountas, 1998). Thus, an examination of how well assessment items correspond with CCSS word reading expectations is warranted to reveal grade-specific Word Reading measurement strengths and weaknesses.

Because the Word Reading assessment has a narrow focus, we expected that our study of alignment would be constrained to those standards that specifically address word reading. Preliminary examination of the English Language Arts CCSS indicated that only the standards contained within the Foundational Skills anchor strand would be appropriate for analysis because they target basic reading skills development. Furthermore, only Standard 3, *Phonics and Word Recognition,* comprised skill expectations compatible with the measurement goals of the Word Reading assessment. Additional inspection of each grade-level Standard 3 expectation indicated that some sub-skills would be excluded from analysis because they did not involve behaviors that could be measured by the Word Reading assessment. Figure 1 displays the K-3 Standard 3 skills and their component sub-skills; sub-skills used for this study are shown in bold. As shown in Figure 1, at least half of the component sub-skills within each grade were retained for use in this study.

RF.K.3. Know and apply grade-level phonics and word analysis skills in decoding words.

A. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant.
B. **Associate the long and short sounds with the common spellings (graphemes) for the five major vowels**.
C. **Read common high-frequency words** by sight (e.g., *the*, *of*, *to*, *you*, *she*, *my*, *is*, *are*, *do*, *does*).
D. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

RF.1.3. Know and apply grade-level phonics and word analysis skills in decoding words.

A. **Know the spelling-sound correspondences for common consonant digraphs** (two letters that represent one sound).
B. **Decode regularly spelled one-syllable words**.
C. **Know final -e and common vowel team conventions for representing long vowel sounds**.
D. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
E. **Decode two-syllable words** following basic patterns by breaking the words into syllables.
F. **Read words with inflectional endings**.
G. **Recognize and read grade-appropriate irregularly spelled words**.

RF.2.3. Know and apply grade-level phonics and word analysis skills in decoding words.

A. **Distinguish long and short vowels when reading regularly spelled one-syllable words.**
B. **Know spelling-sound correspondences for additional common vowel teams**.
C. **Decode regularly spelled two-syllable words with long vowels**.
D. **Decode words with common prefixes and suffixes**.
E. Identify words with inconsistent but common spelling-sound correspondences.
F. **Recognize and read grade-appropriate irregularly spelled words**.

RF.3.3. Know and apply grade-level phonics and word analysis skills in decoding words.

A. Identify and know the meaning of the most common prefixes and derivational suffixes.
B. **Decode words with common Latin suffixes**.
C. **Decode multi-syllable words.**
D. **Read grade-appropriate irregularly spelled words**

Figure 1. Grades K-3 Common Core State Standard 3 reading skill expectations.

Typically, alignment studies employ the use of a rating scale for judging the degree to which items correspond to a particular standard. However, for this study, we examined alignment differently by asking item reviewers to provide us with component sub-skill information about each test item, instead of evaluating how well each item corresponded with a particular skill expectation. We reasoned that this method of calculating reviewer agreement

would provide additional information to enhance the precision of our alignment findings, by revealing the background knowledge of item reviewers for each particular word reading sub-skill of interest.

Our item reviewers were current teachers who we assumed would be familiar with the beginning word reading skills outlined in Standard 3 as part of their daily practice. However, because previous reading researchers indicated that K-3 disciplinary knowledge may be an area of weakness (Cunningham, Perry, Stanovich, and Stanovich, 2004), we inspected both reviewer agreement *and* judgment accuracy because reviewers may share similar misconceptions, and therefore might make evaluations based on similarly inaccurate knowledge. An additional benefit to examining alignment agreement and accuracy was that it revealed how well items fit with what teachers (i.e., our reviewers) knew. Items proving problematic for teacher reviewers would suggest a potentially poor fit between the types of words students are learning to read in the classroom and the types of words assessing word reading skill.

The "alignment" between Word Reading items and the CCSS was determined by the frequency of CCSS sub-skills identified by reviewers across test items for each grade. High representation of CCSS skills found among items was assumed to reflect stronger consistency, or alignment, between easyCBM® Word Reading measurement and CCSS word reading expectations. We also reported the percent of *correct* agreement among reviewers as an indication of the strength of reviewer certainty concerning alignment results.

Study Methods

Participants

Between November 2011– April 2012, 15 teachers participated in the item review. All teachers were trained to identify relevant word part information for items from the K–3 Word Reading assessment. The 15 teacher reviewers included the following: three kindergarten, one first grade, four second grade, four third grade, and three special education. The teacher reviewers resided in Florida, Illinois, Maryland, Ohio, Oregon, and Washington, and had, on average, 10 years of experience teaching in their respective placements, ranging from 1–28 years. To the extent possible, teacher background (kindergarten, first grade, second grade, third grade, and special education) was counterbalanced across each item reviewed. Three teachers completed extra item reviews (on new items) as replacements for participants who dropped– out of the study prior to completion.

Word Reading Measures

Existing K–3 easyCBM® Word Reading measures include 19–20 forms designed to be of equivalent difficulty within each grade (Alonzo & Tindal, 2007). The number of words varies across most grade level forms: Kindergarten forms contain approximately 60 words, while first grade forms contain approximately 120 words, and second and third grade forms each contain approximately 176 words. Across K–3 grades and within grade levels, word items are repeated across forms as part of the equivalent alternate forms design.

Sample Item Pool

To simplify analyses, given the assumption of comparable forms, words were drawn only from the first form of each grade as a sample of all test items available within each grade.

To eliminate word item review redundancy, we combined items across two grades creating two item review pools for grades K–1 and 2–3. After removing duplicate and non–informative items (e.g., *I*), the grade K–1 item pool comprised 57 kindergarten items and 117 first grade items, and the grade 2–3 item pool comprised 172 second grade items and 171 third grade items. Each item was reviewed once by three different teachers (see Tables 1 and 2). Tables 3 and 4 display the words reviewed for grades K–1 and 2–3, respectively.

Procedures

Prior to item review, teachers were required to attend a webinar training that outlined study logistics, procedures for conducting the online review, as well as relevant word reading terminology. Participants were given one month to review 52 words, commencing the day after training, and were compensated with a $25 Amazon.com gift card.

Reviewers were required to provide the following word part information for each item (a combination of all relevant K–3 Standard 3 sub–skills):

a) Indicate the number of syllable word parts and decompose each word into syllable parts
b) Identify any long vowel sound
c) Identify any short vowel sound
d) Identify any final e convention use
e) Identify any common vowel team
f) Identify any common consonant digraph
g) Identify any inflectional ending
h) Identify whether the word had an irregular spelling

All reviews were conducted online using the Distributive Item Review (DIR), a secure web–based system designed to present test items and test forms across a broad geographic region so that they can be reviewed for bias, sensitivity, and in the case of this study, alignment to standards. Figure 2 is a screenshot of a sample Word Reading item as seen by teachers in the

DIR. Within the DIR, teachers were shown one word at a time and requested to provide relevant Standard 3 sub-skill information. The text of the Standard 3 expectations was followed verbatim for each grade level skill. Information not specified for each grade, but captured by the DIR, was not analyzed.

Reviewers were trained to enter word part information only for those word parts present for each item. They were told to leave text boxes blank for word parts not present for a particular item. During the review, a list of study-relevant word part examples was available as a resource (words under review were not on this list). The review website also provided teachers with text boxes for providing feedback, such as expressing concerns regarding the certainty of their response or particular items, and to indicate if they were assisted by any outside resources such as an online dictionary. Although few teachers listed outside resources, the following were reportedly used for responding to challenging items: online dictionaries, paper copy dictionaries, and a phonics website.

TEST ITEM

cover

ITEM REVIEW QUESTIONS

Number of syllables:
○ 1   ○ 2   ○ 3   ○ 4

BASE VOWEL – long vowel – common:
For regular spelling words only, type the word part indicated if appropriate.

Figure 2. Sample DIR screenshot of a word reading item and a portion of the word part prompt.

The first author examined the accuracy of reviewer agreement by referencing the following texts: *The Reading Teacher's Book of Lists* (Fry, Kress, & Fountoukidis, 2000), *Unlocking Literacy: Effective Decoding and Spelling Instruction* (Henry, 2003), *Speech to Print: Language Essentials for Teachers* (Moats, 2000), and *Word Matters: Teaching Phonics and Spelling in the Reading/Writing Classroom* (Pinnell & Fountas, 1998). Credible websites were also referenced, such as *dictionary.com*, for syllable counts and pronunciations.

Word frequency for kindergarten words was also examined by the first author (see RF.K.3.C above). The Pinnell and Fountas (1998) lists of the 100 and 500 most highly frequent words in print were used to identify highly frequent words. Word Zone frequency (Hiebert, 2005) was examined for all words not found on the high frequency word lists. Words listed on the Word Zone frequency list are rank ordered into one of four frequency zones for 5,586 of the most frequent words found in print. For example, words ranked as a 1 (e.g., *all*) are among the 310 most frequent words in print, words ranked as a 2 (e.g., *book*) are among the 311–930 most frequent words, whereas words ranked as a 3 (e.g., *accept*) are among the 931–2,606 most frequent words in print and words ranked as a 4 (e.g., *advice*) are among the 2,607– 5,586 most frequent words in print. Therefore, words ranked more highly were considered less frequently found in print, rendering them weak candidates for assessing students' abilities to read common high frequency words.

Results

We report results by grade level, with each Standard 3 expectation reported separately as shown in Figure 1.

Kindergarten

Long and short vowel sounds (RF.K.3.B). Standard 3 states that kindergarten students should be able to "associate the long and short sounds with common spellings for the five major vowels." Therefore, we examined the frequency of kindergarten items that contained long (represented by a single letter) and short vowel sounds for demonstrating word reading ability. Words with long vowel sounds composed of a vowel team or *y* were excluded from this analysis because the expectation denoted by Standard RF.K.3.B stipulates that students should be able to read vowel sounds for the five major vowels (*a*, *e*, *i*, *o*, and *u*).

Eleven kindergarten words (19.3%) were identified as containing a long vowel sound using one of the five major vowels, with correct agreement among reviewers occurring 75.8% of the time. Twenty-three kindergarten words (40.3%) were identified as containing at least one short vowel sound, with 98.6% correct agreement among reviewers. Therefore, nearly 60% of the kindergarten Word Reading items reviewed were consistent with the type of long- and short-vowel sound words students are expected to know how to read according to Standard 3. The remaining 40% of the words contained either a vowel team (e.g., *book, deep, eat*), long vowel final- *e* convention or *y* (e.g., *side, my,* respectively), or irregular symbol-sound correspondence (e.g., *are, great, world*).

High frequency words (RF.K.3.C). Ten words (18.0%) were found to be among the 100 most frequent words in print (Pinnell & Fountas, 1998). An additional 32 words (56.0%) were found to be among the 500 most frequent words in print (Pinnell & Fountas, 1998). Combined, 74% of the kindergarten Word Reading assessment items reviewed were identified as among the 500 most frequent words in print.

Fifteen words were not found on the Pinnell and Fountas (1998) lists, and so the Word Zone frequency list (Hiebert, 2005) was consulted to provide an indication of their print frequency. All 15 words were found using the Word Zone frequency list. Words ranked with a 1 or 2 were considered highly frequent because they are reported among the 930 most frequent words in print, while words ranked as a 3 or 4 were considered less frequently found in print. Eight words were ranked as a 2 and considered highly frequent: area, book, corner, feeling, forest, low, rock, and wood. Seven words were ranked as a 3 and considered less frequent: blow, branch, cover, dollars, enter, stick, and wheels.

Summary. Approximately 60% of the kindergarten Word Reading test items were identified as having a long or short vowel sound (RF.K.3.B of Standard 3). The majority of kindergarten Word Reading items were identified as highly frequent (i.e., within the 930 most frequent words in print), consistent with RF.K.3.C. The extent to which items corresponded with sub-skills A and D was not assessed because they cannot be measured using the Word Reading assessment. Overall, the Word Reading assessment was most aligned with reading highly frequent words and to a lesser extent, reading words with short and long vowel sounds.

First Grade

Common consonant digraphs (RF.1.3.A). Standard 3 states that first grade students should "know the spelling-sound correspondences for common consonant digraphs." Reviewers identified 18 words (16.0%) with a consonant digraph. The most frequently identified digraphs included *ck*, *sh*, *th* and *wh*. Teacher correct agreement was found to be near chance, with the items correctly identified as digraphs only 55.6% of the time. Reviewer responses indicated confusion regarding the difference between a blend and a digraph.

Regularly spelled one and two-syllable words (RF.1.3.B and D). Sixty-seven of the first grade assessment items (59.8%) were single-syllable words with regular spellings. Teacher correct agreement occurred 100% of the time. Twenty-seven items (24.1%) were identified as two-syllable words with regular spellings, with correct agreement occurring 98.0% of the time.

Final e- and common long vowel sounds (RF.1.3.C). Thirty-three items (29.0%) were identified as containing either a final- *e* or common long vowel team convention for representing long vowel sounds. Reviewer correct agreement occurred 71.7% of the time. The most common combinations identified included final- *e* (*n* = 15 words) and *ee* (*n* = 5 words).

Inflectional endings (RF.1.3.F). Nine items (8%) were identified as containing an inflectional ending, such as -*s*, -*ing*, -*er*, or -*ed*. Reviewers correctly identified these word parts 74.1% of the time.

Grade appropriate irregularly spelled words (RF.1.3.G). Fourteen items (13.0%) were identified as irregularly spelled words from the first grade assessment, with 78.6% correct agreement among reviewers. The extent to which words were judged as "grade appropriate" was difficult to determine, as no widely accepted list of grade appropriate words currently exists. We consulted two published lists (Fry, 2004; Henry, 2003), and found that five words

were considered first grade level, eight words were considered second grade or above, and one word was not present on either list. Therefore, approximately 5% of the first grade words were consistent with the expectation that students read grade appropriate irregularly spelled words.

Summary. Sixteen percent of the first grade items reviewed contained a common consonant digraph (RF.1.3.A of Standard 3). Nearly 60% of the first grade items were identified as regularly spelled one-syllable words (RF.1.3.B), whereas less than 25% of the words were identified as regularly spelled two-syllable words (RF.1.3.E). Long vowel sounds, comprised of a final- *e* or common vowel team convention, were represented in nearly 30% of the words reviewed, consistent with the expectation outlined in RF1.3.C. The extent to which students can relate syllables to vowel sounds (RF1.3.D) was not examined because this behavior cannot be measured using the Word Reading assessment. Inflectional endings and grade-appropriate irregular spellings were identified in approximately 8% and 13% of the first grade items reviewed, respectively. Therefore, the first grade Word Reading items was best aligned with the Standard 3 expectation for reading one-syllable words and more weakly aligned to the other word reading skill expectations examined.

Second grade

Long and short vowel one-syllable words (RF.2.3.A). Standard 3 states that students should be able to "distinguish long and short vowels when reading regularly spelled one-syllable words." Twenty-five first grade words were identified as one-syllable words with regular spellings in which the short or long vowel sounds were represented by one letter (i.e., vowel teams were excluded because they are targeted in RF.2.3.B). Nineteen words (11.6%) were identified as containing short vowel sounds, with reviewer correct agreement occurring

96.5% of the time. Six words (3.7%) were identified as containing long vowel sounds, with reviewer correct agreement occurring 60.0% of the time.

Additional common vowel teams (RF.2.3.B). Students are expected to know the spelling-sound correspondences for additional common vowel teams. Therefore, we examined the frequency of words that contain common vowel teams, such as *ai*, *ay*, *au*, *al*, *ea*, *ee*, *ie*, *ow*, *oo*, and *ou*. We did not include words with final- *e* conventions (*n* = 25) because although they are sometimes considered "vowel teams", they were not specifically identified as part of the standard for second grade (in contrast, see Standard 3 for first grade). Reviewers identified 61 words (37.2%) as having a long vowel sound composed of a common vowel team. Reviewer correct agreement for these items occurred 69.9% of the time.

Regularly spelled two-syllable words with long vowels (RF.2.3.C). Reviewers identified 91 words (55.5%) as two-syllable words with a long vowel sound composed from a single vowel, vowel team, *y* ending, or a final-*e*. Reviewer correct agreement occurred 66.7% of the time.

Common prefixes and suffixes (RF.2.3.D). Reviewers identified 40 words (24.4%) as containing either a common prefix or suffix. We included prefixes and suffixes from Anglo-Saxon, Latin, and Greek origins. Prefixes identified by reviewers included *in-*, *ob-*, *pre-*, and *pro-*. Suffixes included -*ate*, -*es*, -*ed*, -*ion*, -*ity*, -*ing*, -*ly*, -*ment*, and -*s*. Reviewer correct agreement occurred 60.8% of the time.

Grade appropriate irregular spellings (RF.2.3.F). Reviewers identified 17 words (10%) as having irregular spellings. The extent to which these words could be considered grade-level appropriate was difficult to establish as there is yet no commonly agreed upon list of grade level words. However, similar to the first grade review, we consulted the Fry (2004) list and

found that of these words, three were considered first grade, two were considered second grade, six were considered third grade or above, and six words were not present on the list.

Summary. Less than 20% of the second grade one-syllable words were identified as having either a short or long-vowel sound (RF2.3.A of Standard 3). Nearly 40% of the words were identified as having a long vowel sound composed of a common vowel team (RF2.3.B). Similarly present among the second grade items were regularly spelled two-syllable words with long vowels (RF2.3.C), representing nearly 56% of the items reviewed at this grade level. Words containing common prefixes and suffixes were represented by 24% and 10% of the words reviewed, respectively (RF2.3.D). The extent to which students can identify inconsistent but common spelling sound correspondences (RF2.3.E) was not examined. <u>Therefore, the second grade Word Reading items were best aligned with the Standard 3 expectation that students read words containing long vowel sounds, and more weakly with the other skill expectations</u>.

Third grade

Common Latin suffixes (RF.3.3.B). Reviewers identified 12 items (7.8%) as words containing a Latin suffix, such as *–ity*, *-ion*, *-ence*, *able*, *-or*, *-ous*, and *-ment*. Reviewer correct agreement occurred 50% of the time. Reviewer responses indicated general confusion regarding suffix endings, and in particular, Latin origin suffixes.

Multi-syllable words (RF.3.3C). Reviewers identified 26 items (17.0%) as multi-syllabic. High correct agreement was found among reviewers (i.e., 98.7% of the time).

Grade appropriate irregularly spelled words (RF.3.3D). Reviewers identified 21 items (14%) as having irregular spellings. Reviewer correct agreement occurred 80.1% of the time. Similar to first and second grade, we consulted two published lists to ascertain grade level

appropriateness (Fry, 2004; Henry, 2003), and found three of these words were considered

third grade level, eight words were identified as second grade level or below, three words were

identified as fourth grade level or above, while six words were not found on either list.

Therefore, less than 2% of the third grade items could be considered grade appropriate

irregularly spelled words.

Summary. Less than 10% of the words contained Latin suffixes (RF3.3.B of Standard 3).

Twenty percent of the third grade items reviewed was identified as multi-syllabic words

(RF3.3.C), and less than 2% of the items could be considered grade appropriate words with

irregular spellings (RF3.3.D). The extent to which students can identify and know the meaning

of common prefixes and derivational suffixes (RF.3.3.A) was not examined, as these behaviors

are not part of the Word Reading assessment.

Discussion

The easyCBM® Word Reading assessment was developed to facilitate progress

monitoring of student word reading performance across time. Repeated measurement of

student performance using alternate equivalent forms can provide a glimpse into student word

reading skill development, particularly when the test content corresponds with what students

are expected to learn based on academic content standards like the CCSS. In an effort to bridge

progress monitoring assessment with national expectations for reading skill development, as

outlined by the CCSS, we analyzed the degree to which existing Word Reading items

corresponded with the types of word reading skills students are expected to demonstrate.

Because the easyCBM® Word Reading assessment was developed prior to the release of

the CCSS, one would not expect to find high alignment across all skill expectations, except by

chance. Because strong alignment between the Word Reading test items and Standard 3 reading skill expectations for all grades would be a highly unlikely finding, we aimed to identify relative strengths and weaknesses of alignment between test item content and learning expectations within each grade. Unlike typical alignment studies, we based our assessment of alignment on the extent to which test items reflected the type of words students are expected to know how to read as outlined by the CCSS. Using reviewer responses and published resources to indicate the representativeness of CCSS sub-skills among Word Reading items, we reported the degree of correspondence between Word Reading test items and CCSS sub-skill expectations.

In general, the kindergarten items were most strongly aligned with the word reading expectations stated in Standard 3. More than half of the items contained long or short vowels, and a high percentage of the items were considered highly frequent. First and second grade items yielded more mixed results depending upon the particular reading skill identified. Third grade test items did not strongly reflect the types of words students should know how to read based on the CCSS skill expectations.

Although these results are preliminary, a number of limitations need to be considered. First, only a sample of all the Word Reading items was reviewed. Given the extensive item pool (20 forms per grade) we used items drawn from only one form. This limited our ability to draw conclusions about the larger universe of words used across the entire Word Reading assessment. A second limitation of this study was the number of reviewers per item (i.e., three), which constrained the generalizability of the findings to the larger population of K-3 teachers. As shown by the widely ranging correct agreement among reviewer participants,

there are likely gaps in word knowledge among teachers for some of the skills students are

expected to know, which suggests the need to further examine the link between Common Core

learning expectations, reading skill measurement, and the use of assessment results to inform

instruction.

References

Alonzo, J., & Tindal, G. (2007). *The development of word and passage reading fluency measures for use in a progress monitoring assessment system (Technical Report #40)*. Eugene, OR: Behavioral Research and Teaching.

Common Core State Standards Initiative (2012). *English language arts standards*. Retrieved from: http://www.corestandards.org/ELA-Literacy.

Cunningham, A. E., Perry, K. E., Stanovich, K. E., & Stanovich, P. J. (2004). Disciplinary knowledge of K-3 teachers and their knowledge calibration in the domain of early literacy. *Annals of Dyslexia, 54*, 1, 139-166.

Fry, E. B. (2004). *The vocabulary teacher's book of lists*. San Francisco, CA: John Wiley & Sons.

Fry, E. B., Kress, J. E., & Fountoukidis, D. L. (2000). *The reading teacher's book of lists (4th ed)*. Paramus, NJ: Prentice Hall.

Henry, M. (2003). *Unlocking literacy: Effective decoding and spelling instruction.* Baltimore, MD: Paul Brookes.

Hiebert, F. (2005). *Word zones for 5,586 most frequent words (v1.1)*. Retrieved and used with consent from: http://textproject.org.

Moats, L. C. (2000). *Speech to Print: Language Essentials for Teacher.* Baltimore, MD: Paul Brookes.

Pinnell, G. S., & Fountas, I., C (1998). *Word matters: Teaching phonics and spelling in the reading/writing classroom.* Portsmouth, NH: Heinemann.

Table 1. *Grades K‑1 Review Design and Assignment by Item Sets.*

Set1	Set2	Set3	Set4	Set5
A‑Kinder	B‑Kinder	A‑Kinder	B‑Kinder	C‑Kinder
C‑Kinder	E‑First	D‑First	D‑First	E‑First
F‑SPED	F‑SPED	G‑SPED	G‑SPED	H‑SPED

Note. Each teacher is represented by a unique alphabetic letter to designate the two item reviews completed. Kinder = Kindergarten; First = First grade; SPED = Special Education.

Table 2. *Grades 2–3 Review Design and Assignment by Item Sets.*

Set1	Set2	Set3	Set4	Set5	Set6	Set7	Set8	Set9	Set10
A–Third	B–Third	A–Third	B–Third	C–Third	D–Third	C–Third	D–Third	E–Third	E–Third
J–Sec	F–Sec	F–Sec	G–Sec	G–Sec	H–Sec	H–Sec	I–Sec	I–Sec	J–Sec
K–SPED	K–SPED	L–SPED	L–SPED	M–SPED	M–SPED	N–SPED	N–SPED	O–SPED	O–SPED

Note. Each teacher is represented by a unique alphabetic letter to designate the two item reviews completed. Sec = Second grade; Third = Third grade; SPED = Special Education.

Table 3. *Grades K–1 Items Reviewed by Set.*

Set1	Set2	Set3	Set4	Set5
across	cover	however	mouth	stick
all	cut	hunting	move	string
always	deep	hurtful	my	sun
another	dollars	important	name	sure
any	early	inflate	north	they
are	eat	insects	off	think
area	end	inside	old	third
back	enter	instruct	passed	told
ball	family	into	people	too
become	fast	isn't	power	took
below	father	it	radio	top
between	feeling	left	read (*ee*)	trade
big	feet	life	ready	travel
black	find	look	rest	tree
blow	fly	low	river	trouble
book	food	mall	rock	until
born	forest	man	same	wait
boy	found	marsh	sat	way
branch	game	mast	say	wheels
break	good	matter	scale	why
can't	great	me	sense	wide
case	grow	might	set	wiser
cents	hand	miss	shape	wish
clear	here	mistake	she	wood
complete	history	money	side	world
corner	how	mound	square	wriggle

Table 4. *Grades 2-3 Items Reviewed by Set.*

Set1	Set2	Set3	Set4	Set5	Set6	Set7	Set8	Set9	Set10
action	branch	cultivate	experiment	have	list	please	senior	sure	while
adapt	brought	current	factories	he	look	poem	sense	team	wife
ago	business	dark	fair	history	lovable	pole	serve	tell	wire
always	cannot	deception	fall	house	low	power	settled	ten	wish
among	canyon	deep	family	human	marsh	practice	seven	terms	work
amount	capital	desert	famous	hunting	matter	predict	shape	territory	world
an	captain	didn't	fare	I'm	men	president	sharp	terror	branches
another	case	difference	farming	important	military	printed	side	thick	belief
any	cattle	direction	father	indicate	mind	probably	sight	though	follow
anyone	caught	divided	federal	inflate	miss	property	silent	thought	under
astronaut	chance	does	fell	insects	money	protest	single	thousands	
back	child	dollars	followed	inside	moon	question	size	through	
ball	class	don't	forest	interesting	mulch	radio	special	top	
base	clear	down	fossil	invade	music	rather	spend	trade	
become	cloud	drawing	found	irrigate	my	reached	spread	tube	
believe	come	dusty	full	island	name	ready	square	uncle	
below	community	duty	game	isn't	object	realize	statement	understand	
better	company	early	general	journal	observe	really	still	until	
bill	complete	easy	governor	keep	old	received	stop	urban	
black	confusion	eat	grain	landed	once	report	strange	value	
blood	control	eight	great	learn	own	return	stream	wait	
blow	course	electric	ground	left	page	rise	string	warm	
boat	cover	entered	guess	legal	paint	road	study	waves	
body	crisis	equal	halt	letter	passed	rules	subject	way	
boom	crops	even	hand	life	period	scale	sun	week	
born	crowd	exciting	happen	lifted	planets	science	suppose	weight	