

NEW INSIGHTS ABOUT LETTER LEARNING

Katherine A. Dougherty Stahl

When was the last time that you engaged in a compelling discussion about teaching the letters of the alphabet? In the last few years, early foundational reading skills have taken a back seat to literacy topics that are emphasized in the ELA Common Core State Standards, such as text complexity, comprehension, writing in response to text, and disciplinary literacy. However, some exciting new research is expanding what we know about how children learn letters and the best ways to teach the alphabet.

Alphabet knowledge in kindergarten and first grade predicts later literacy achievement. Alphabet knowledge includes identifying letter names (LN) and letter sounds (LS) as well as knowing how to form letters. Knowledge of letter-sound associations or the ability to match a letter with the sound it makes is related to the ability to sound out and to spell words (Huang, Tortorelli, & Invernizzi, 2014). This awareness is also essential in grasping the *alphabetic principle*, which is defined as “the understanding that language is made up of discrete sounds and that letters represent those sounds in a systematic way” (Huang et al., 2014, p. 182). Awareness of the alphabetic principle forms the developmental boundary between being an emergent reader who pretend-reads and being a novice reader who is bound to the print on the page

(Stahl & Garcia, in press). Research studies published since the report of the National Reading Panel (NRP; National Institute of Child Health and Human Development [NICHD], 2000) and the report of the National Early Literacy Panel (2008) have identified important implications for the effective instruction of letters with young children. Apparently, the nuances of instructing this seemingly simple skill set can make a difference in acquisition of alphabet knowledge and, consequently, more general literacy. In this column, I will discuss some key considerations for implementing effective instruction of the alphabet.

Explicit and Systematic Instruction Still Works

The NRP report (NICHD, 2000) emphasized the necessity for explicit, systematic instruction of alphabetic skills. Recent research that is specific to letter learning confirms this principle (Piasta & Wagner, 2010a; Jones & Reutzel, 2012). Contextual practice and teaching for transfer are important instructional components, but isolated practice that is systematic and explicit is more effective than relying on embedded instruction that occurs through shared storybook

Katherine Stahl is a clinical associate professor at New York University, New York, USA; e-mail kay.stahl@nyu.edu.

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reading. Consequently, systematic letter instruction conducted at school is more effective than parental efforts (Piasta & Wagner, 2010a). Teachers get the best results when differentiating small-group instruction in response to the students’ existing alphabet knowledge.

News Regarding Cultural and Programmatic Variations

In North America, letter names and uppercase letters are introduced first in homes, games, songs, and on television. In England, caregivers typically refer to letters by their sounds rather than their names and rarely use uppercase letters when working with their young children. This orientation to letters results in differences in performance patterns between North American and English children (Treiman, Stothard, & Snowling, 2012). Children in North America tend to come to school with more LN knowledge than English students. Huang et al. (2014) determined that entering kindergartners in Virginia already knew, on average, 18 lowercase letter names. Therefore, methods of instruction that build on existing LN knowledge are likely to be effective with North American children but might cause an additional learning burden on English children. Similarly, programs that neglect to teach or apply letter names until after most letter sounds have been taught are overlooking advantages that most North American children could use to support LS acquisition. In order to teach LS relationships efficiently, it makes sense to connect

LS knowledge to students’ existing LN knowledge.

Piasta, Purpura, and Wagner (2010) compared a group of preschoolers in the United States who received combined LN-LS instruction to a comparable group of children who received LS instruction. The LN-LS instructional group outperformed the LS instructional group in learning both letter names and letter sounds. Piasta et al. (2010) concluded that referring to letters only by sound is unnatural for North American students and could be confusing.

Before adopting a program, teachers in preschool and kindergarten settings need to consider whether the program is a cultural match for their population. It is important to identify whether the program teaches letter names and sounds together or whether it only emphasizes the letter sounds without referencing letter names and forms. HighScope (HighScope Educational Research Foundation, 2005) and Open Court (SRA/McGraw-Hill Education, 2004) are examples of programs that teach letter sounds in relationship to letter names. The Core Knowledge Skills strand and Montessori are programs that teach letter sounds with disregard for letter names until later in the learning sequence (Core Knowledge Foundation, 2011; Montessori & Gutek, 2004).

Not All Letters Need Equal Effort

In order to teach letters systematically, many teachers still use the letter-of-the-week approach. Teachers provide children with practice in recognizing,

forming, and making the sound correspondence of a single letter throughout the week. Using this approach treats each letter equally. However, recent research proves that some letters are easier to learn than others (Evans, Bell, Shaw, Moretti, & Page, 2006; Huang et al., 2014; Justice, Pence, Bowles, & Wiggins, 2006; Piasta & Wagner, 2010b). These studies involved children in North America. Therefore, generalizations should be limited to populations of children whose experiences with letter names precede their experiences with letter sounds. Certain characteristics of both children and letters make it easier or more difficult to learn about the alphabet. Teachers of young children need to know what these advantages are and adjust instructional time and attention accordingly.

Generally, children recognize and form the uppercase letters before the lowercase letters. This learning sequence may be the result of caregivers and games that display uppercase forms more commonly than lowercase forms. In particular, the uppercase letter names for *A*, *B*, *X*, and *O* were known by the greatest percentages of 4-year-olds (Justice et al., 2006). The onomatopoeic sounds, such as */s/* as in a snake’s *hiss*, */z/* as in *buzz*, and */m/* as in *mmm*, are among the earliest sound-letter associations learned by children (Evans et al., 2006). Huang et al. (2014) determined that the most difficult LN-LS relationships for children

“It makes sense to connect letter sound knowledge to students’ existing letter name knowledge”

to learn are consonants *y*, *w*, and *c* and vowels *i*, *o*, and *e*. Children tend to master the sounds of *u*, *y*, and *i* latest developmentally.

Letter-name knowledge is the strongest predictor of a child's knowledge of letter sounds. Additionally, recent research has provided some clear indicators that can help teachers anticipate both those children who may have more difficulty learning LN-LS relationships and those letters that will require more instructional effort.

Child Characteristics

These characteristics are specific to particular children. However, they might be considered in planning curriculum for a classroom or providing small-group differentiation to children who are at similar places developmentally.

Own-Name Advantage. Children learn the names and sounds of the letters in their own names. Justice et al. (2006) determined in a study of 4-year-olds that the initial letter of a child's name was 11 times more likely to be known than a letter not in that child's first name. Children have a higher likelihood of knowing a letter sound when it is the initial sound in their name and if the letter sound in the child's name is consistent with the sound heard in the letter's name. In other words, teachers should expect that Jessica will have an easier time learning /j/ than Joaquin.

Phonological Awareness. The NRP (NICHD, 2000) determined that it was beneficial for letter work and phonological awareness training to simultaneously support each other. A child's LS knowledge is reliant on phonological sensitivity. Both rhyming ability and onset-rime awareness facilitate the child's ability to make connections between letter names and the sounds

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that particular letters make. For example, the beginning sound of *b* is /b/, and many alphabet letters rhyme, causing their only distinction to be the beginning sound (*b*, *c*, *d*, *v*). Having phonological awareness enables children to extract the letter sounds from within the letter names that they know. The ability to separate the onset from the rime or to segment /b/—/ē/ enables the child to hear and associate *b* with /b/.

Letter Characteristics

There are characteristics of alphabet letters that make their sounds easier or more difficult to learn. The *letter-name pronunciation advantage* occurs when the letter name's pronunciation contains the letter sound, making it easier to learn the letter. The letter-name pronunciation effect does not seem to provide much of an advantage during the earliest stages of learning LN (Justice et al., 2006). However, studies of 5-year-olds do demonstrate that children learn the LS most easily when the sound is the initial consonant sound heard in the letter name (*b*, *d*, *j*, *k*, *p*, *t*, *v*, *z*), also known as a CV structure (Evans et al., 2006; Huang et al., 2014; Piasta & Wagner, 2010b). Children also easily learn LS when the sound of the letter name is the consonant sound heard at the end of the letter name (*f*, *l*, *m*, *n*, *r*, *s*) or VC structure (Huang et al., 2014). Those letters' names that have no association (*h*, *w*, *y*) or an ambiguous association (*c*, *g*, and vowels) with their sounds are among the most difficult for children to learn, even if children have high levels of phonological awareness.

Instructional Implications

Teaching one letter a week doesn't allow time to provide the level of intense practice for the letters that children need to learn the most difficult letters. It also wastes time teaching letters that many children already know or need little instruction to master. Instead, small-group differentiated instruction that is based on the letter names, letter sounds, and phonological awareness of children is likely to be more time-efficient and effective in increasing letter knowledge. Teachers should expect to spend less time teaching LN-LS relationships for the letters that have VC or CV structures and more time teaching the ambiguous sounds (*h*, *w*, *y*, *c*, *g*, the vowels, and the complex sounds of *q* and *x*).

Jones and Reutzel (2012) have developed Enhanced Alphabet Knowledge (EAK), an instructional protocol that teaches *a new letter each day*. Applying the information about traits that make letters easy or difficult to learn, this protocol calls for teachers to introduce a new letter or set of letters each day in multiple cycles of repeated practice. Over time, as the easier letters are mastered, teachers adjust the instruction through pacing and frequency of exposure. All letters are taught explicitly at least once. However, those letters that are harder for children to learn receive more attention and practice. For example, the first instructional cycle teaches the initial letters of the names of the students who are in the class. Cycle 2 teaches all of the letters in alphabetical order. There is evidence that the beginning (*a*, *b*, *c*) and ending (*x*, *y*, *z*)

of the alphabet are more easily remembered than the middle. Cycle 2 ensures that each letter is explicitly taught. The teacher makes use of alphabet books, songs, and games during this cycle. Cycle 3 is based on the letter-name pronunciation advantage. CV sounds (*b, d, j, k, p, t, v, z*) are taught first as needed, followed by VC sounds (*f, l, m, n, r, s*), with additional time allocated for ambiguous letters and those such as *h, y*, and *w* that have no association with their LN and cause children the most difficulty. Ongoing assessment of students' letter knowledge should be used to monitor and adjust the instruction and grouping of students.

Throughout the year, as children master the easier LN-LS relationships, more time is devoted to discriminating between critical features of letters that are similar in form (e.g., *b, d, p, q*) or additional instruction of other troublesome letters. Jones and Reutzel (2012) demonstrated that EAK was more effective in increasing the number of students who achieved DIBELS Letter Naming Fluency benchmarks than a traditional letter-of-the-week instructional format.

Multicomponent Approaches Are More Effective than Unitary Approaches

Teaching phonological awareness and letter learning in tandem is effective and efficient (NICHD, 2000; Piasta & Wagner, 2010a, 2010b). Providing opportunities for children to generate rhymes and manipulate sounds (blending, deleting, segmenting) accelerates the reciprocal development of phonological awareness and alphabet knowledge. Combining these elements does not mean that the lessons must be long or tedious. Engagement is key, and the attention of young children

is limited. Jones and Reutzel's (2012) lesson plan for EAK ranges from 10 to 12 minutes (see Table). Piasta et al. (2010) developed lessons for preschool students that were 10–15 minutes in duration. Like Jones and Reutzel, Piasta et al. introduced a new letter each day. However, they conducted review lessons at the end of each week. Teaching letter names, letter forms, and how the mouth feels when sounds are produced serve as bootstraps for children with weak phonological processing skills.

Teach for Transfer to Connected Text

Teachers need to build explicit bridges between letters, sounds, and connected text for children to learn how to operationalize the alphabetic principle. Young children who are at the earliest stages of learning how abstract letters and sounds come together to form meaningful words lack clarity about how the system operates. If alphabet skill instruction is always isolated from connected text, children do not learn how

to use these skills in service to writing and reading. Therefore, it is important to make connections between alphabet lessons and other literacy activities, such as shared reading of big books, poetry posters, and alphabet books; shared writing; interactive writing; and the morning message.

Hindman and Wasik (2012) found that the amount of talk about letters during the morning message in Head Start classrooms predicted end-of-year alphabet knowledge. Talking about letters and the sounds they make during shared reading helps children see the letters as tools for arriving at a precise message and the means for releasing reliance on memorization. Although children may enjoy books with flaps, pop-ups, and other snazzy gizmos, these distract from the attention to print that we want to foster at this developmental stage.

Writing activities are an important means of helping children establish letter-sound relationships. During shared writing, the teacher holds the pen but encourages the children to contribute both content and the spelling

Table Enhanced Alphabet Knowledge Lesson Components (Adaptation of Jones & Reutzel, 2012 [p. 463])

| Component | Time (in minutes) | Description |
|--------------------------------|-------------------|--|
| Letter-name identification | 1–2 | Teacher demonstrates and children practice naming the targeted uppercase and lowercase letter(s). |
| Letter-sound identification | 1–2 | Teacher provides the sound of the letter and demonstrates how it is formed in the mouth. Children practice making the sound as it is matched to both uppercase and lowercase letters. Keywords and various activities manipulating sound may be provided. Short sounds of the vowels are taught. |
| Recognizing the letter in text | 3 | Students locate the uppercase and lowercase letter in letter assortments, words, and connected text. They make the letter sound when they find the target letter(s). |
| Producing the letter form | 4–5 | Teacher demonstrates and provides a verbal description explaining how to make the letter on lined paper. The children practice forming the letters on paper or dry-erase boards or with clay, pipe cleaners, or Wikki Stix. |

of whole words or parts of words. The teacher demonstrates how to segment words into sounds and then how to represent those sounds with the appropriate letter forms. During interactive writing, the teacher shares the pen with the children. The morning message can be conducted as either shared writing or interactive writing (Hindman & Wasik, 2012). Encouraging the use of invented spelling during independent writing helps children further operationalize the alphabetic principle.

Rethinking Letter Learning

The last few years have provided many new insights about the best ways to teach the alphabet to children in preschool and kindergarten. Common Core is causing many schools to rethink literacy instruction. In early childhood settings, these conversations should also include a review of the current practices and programs that are being used to teach the alphabet. Teaching these skills effectively and efficiently has powerful implications for the long-term literacy success of our students and for expanding the capacity of our comprehensive school literacy program.

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