The letterbox lesson: A hands-on approach for teaching decoding
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Mary Claire Whipple, a preservice teacher at Auburn University in Alabama, USA, writes of her experience tutoring a first grader struggling to learn to read:

In the very beginning of tutoring, we began reading primer books. When Susan would come across an unfamiliar word, she would look at the beginning letters and guess the word (which was almost always incorrect). She rarely paid attention to the whole word. In her writing, Susan would sometimes leave out vowels and would only write the consonant sounds.

By the end, I noticed that Susan would stop at an unfamiliar word and would look at each letter. If she felt it was necessary, she would use her finger to cover up parts of the word to help her decode it. She would generate a sound for each letter (or for each familiar letter blend), and then generate a pronunciation of the whole word.

I feel that through the letterbox lessons Susan has learned to pay attention to all parts of the word, not just the first sound. I have also noticed that she now includes all sounds in her writing of words. (M.C. Whipple, personal communication, May 30, 1997)

Letterbox lessons are hands-on activities for learning the alphabetic code. Children spell words by placing letters in boxes that show the number of phonemes in words, and later they read the words they have spelled. Letterbox lessons lead emergent readers to understand the alphabetic writing system and help beginning readers develop sight vocabulary. Children enjoy letterbox lessons because they experience success and discover that spellings are meaningful ways to represent words.

Why letterbox lessons?

Do you know children who aren’t learning to read? Perhaps they come from homes where literacy is not the first priority. You’ve tried all the activities that work with most children, but they can’t remember the words you teach them. They can recite predictable books by looking at pictures or beginning letters and guessing, but they can’t read independently.

Many beginners don’t realize that English words are written in an ingenious alphabetic code. This code works at a very subtle level, representing letters the sequence of phonemes our mouths traverse as we say a word. The problem is, phonemes are very hard to detect. They fly by in normal speech at 10–20 phonemes per second, and they overlap with other phonemes in words (Liberman & Liberman, 1992). When children can’t see the connection between letters and phonemes, printed words seem like arbitrary strings of symbols, and consequently, they are very difficult to remember.

Letterbox lessons help children work out the spellings of words before trying to read them. Children pay closer attention to the phonemes that letters represent in spelling than in reading (Adams, 1990; Bryant & Bradley, 1985). By spelling words first, they transfer this careful spelling analysis over into reading. In the letterbox lesson, children spell a carefully selected group of words using manipulatives, and then they read the same words.

Children make the most rapid progress when decoding work is explicit and systematic (Spiegel, 1992). Here explicit means the teacher models how to spell and how to sound out and blend to identify words. Systematic means the teacher works through important correspondences in a planned sequence. Explicit, systematic instruction is particularly important for children without extensive preschool literacy preparation (Delpit, 1988). Letterbox lessons teach a systematic sequence of correspondences by the use of explicit instruction.

Decoding instruction will make little difference unless students apply what they learn in reading and writing whole texts. At Auburn University, we have placed letterbox lessons into a tutoring framework modeled after Reading Recovery, a program that emphasizes functional and motivating work with whole texts (Iversen & Tunmer, 1993; Pinnell, Fried, & Estice, 1990). We have obtained our best results when letterbox lessons merge into authentic reading and writing activities, particularly with books that are decodable according to children’s current correspondence knowledge. In the discussion that follows, we explain how to use the letterbox lesson for individual hands-on decoding instruction.

Teaching letterbox lessons

To conduct a letterbox lesson, you (a) introduce and model a useful correspondence, (b) provide a carefully selected sequence of words for the student to spell using letterboxes as scaffolds, and then (c) help the student read these same words.

Materials. Letterbox lessons require letter manipulatives and Elkonin boxes (letterboxes). Letter manipulatives are commercially manufactured from many materials, and they can be made from paper or card stock. We use a laser printer and photocopier to print double-sided letters, with capital letters on one side and lowercase letters on the other (see Figure 1). The double-sided sheets are laminated before the letters are cut apart and stored in plastic pages designed for holding photographic slides. Letterbox lessons require both capital and lowercase letters,
with extra copies of lowercase vowels and common consonants.

Elkonin boxes are named for Russian psychologist D.B. Elkonin, a pioneer in phoneme awareness research. The visual boxes or squares show the student the number of distinct vocal gestures or phonemes (not letters) in the words to be spelled. For example, the word *sheet* contains only three phonemes. Elkonin boxes are common tools in Reading Recovery lessons (Pinnell et al., 1990). Reading Recovery teachers draw Elkonin boxes on a student’s paper to scaffold invented spellings. Knowing how many phonemes to spell helps the student devise more complete invented spellings, enhancing phoneme awareness. Letterboxes are Elkonin boxes made of card stock squares. The squares are taped into rows for placement of letter manipulatives (see Figure 2).

The teacher introduces digraphs (e.g., *th, ee*) by taping together single laminated letters. Since digraph spellings require two or three letters, letterboxes must be considerably larger than the letter manipulatives.

**Deciding which correspondence to teach.** Letterbox lessons are built around a single new correspondence, usually a vowel, that a student has not yet learned. Only one correspondence is taught per lesson to avoid overwhelming the student. Identifying the correspondences that the student needs and is ready to learn takes a sharp eye. The best way to decide which correspondence to teach next is by studying a student’s miscues during oral reading. For example, if the reader has misread several words with short- *e* vowels, we
can infer that the single vowel e is not cuing the phoneme /e:/; a lesson about the short-e vowel is warranted. Another student may not yet recognize that / with h represents a unique phoneme /θ/ rather than a succession of consonants, justifying a lesson with words like thin, bath, and with.

Short vowels work well for early letterbox lessons. Though their phonemes are hard to identify, short vowels can be spelled with one letter, and they are common in early instructional texts. If the student doesn’t know any short vowel phonemes, short i or a might be good for starters. Teaching any new correspondence effectively, especially an elusive short vowel, requires that you teach the identity of the phoneme. To teach the phoneme, model its pronunciation and show how the phoneme is part of several example words. It is often helpful to teach the child an alliteration that emphasizes the new phoneme (“Uncle was upset because he was unable to put his umbrella up.” Wallach & Wallach, 1976). Then explain that a stands for the sound /a/ that we hear in uncle, upset, unable, umbrella, and up, stretching and exaggerating the phoneme in the example words. If possible, connect the phoneme with children’s experiences. For instance, we often say /a/ (“uh”) when we can’t remember something. Useful texts for teaching phonemes include alphabet books (Murray, Stahl, & Ivey, 1996), songs (Yopp, 1992), and children’s books featuring phonemes (Opitz, 1998).

We have found that teaching vowel correspondences is particularly productive because the correspondences equip students with the decoding knowledge to tackle longer words. After short vowels are mastered, later letterbox lessons can progress through long vowels signaled by silent e and vowel digraphs. Lessons on consonant digraphs (e.g., sh, th, ch) provide variety and illustrate some of the complexities of the English alphabet.

Selecting words. The heart of a successful letterbox lesson is a carefully selected list of words that illustrate a new correspondence. The best example words are simple, regularly spelled words that feature the correspondence you are teaching. Lists of word families or phonograms (e.g., Fry, 1998) make the task of selecting words much easier. For example, imagine your student needs to learn the short vowel a and can use most single consonants. You might select the words ad, am, an, sad, Sam, man, sand, and damp. Consonant clusters (nd, mp) introduce special difficulties in identifying phonemes and should be used sparingly in early lessons, but as children acquire facility with words, they enjoy conquering these word challenges.

Plan a sequence of regular one-syllable words, progressing from simple two- and three-phoneme words to longer words with consonant clusters, excluding words with any unfamiliar correspondences. In choosing words, do not confine your sequence to a single phonogram pattern. Our practice has led us to believe that limiting lessons to words within a single word family is suboptimal because children tend to focus on initial consonants and gloss over the rest of the spelling. For instance, if you give hat, cat, fat, hat, mat, pat, rat, and sat, the student can simply use initial consonant cues without looking further into the spelling. If you have introduced the short a vowel, use a mix of spelling patterns (e.g., cab, mad, rag, pal, fan, and rap) so that the student is required to look beyond the initial letter. Also, include four- and five-phoneme words with consonant clusters (e.g., last, stand).

<table>
<thead>
<tr>
<th>Word lists for teaching various correspondences</th>
</tr>
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<tbody>
<tr>
<td><strong>Short a</strong></td>
</tr>
<tr>
<td>at, cab, fad, rag, ham, hand, last, stand</td>
</tr>
<tr>
<td><strong>Long a (a-e)</strong></td>
</tr>
<tr>
<td>fad, fade, Sam, same, snake, trade, flame, planes</td>
</tr>
<tr>
<td><strong>ch</strong></td>
</tr>
<tr>
<td>chin, chop, chat, chest, chip, chug, much, such, rich, inch, lunch</td>
</tr>
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</table>
Select a reasonable number of words, usually 5 to 10, scaling the number and complexity of words to the student’s ability. It is better to plan for a couple of extra words (which you can omit if the student is struggling) than to have too few. However, it is important to limit the word set so that the student can experience success and move on to other activities. The Table gives examples of word lists to teach various correspondences.

While children need to learn some common irregular words to read nearly any text (e.g., of, you, have, was, to), the letterbox lesson is not designed for these exception words. Words for the letterbox lesson illustrate the alphabetic principle by using simple one-to-one matches between letters or digraphs and phonemes. Irregular words with exceptional correspondences provide confusing nonexamples of these matches (for example, what does not illustrate the usual pronunciation of the vowel a). Also, the lesson is designed for learning one-syllable words. Polysyllabic words are difficult to break down into phonemes because the syllable segmentation confuses the phoneme segmentation.

The words you select for the letterbox lesson need not come from the storybooks your student is reading, nor from miscre records. Students’ miscues reveal correspondences and spelling patterns to be learned, but a miscue word rarely makes a good example word; for example, it may be polysyllabic, use untaught correspondences, or have an irregular spelling. Complex and irregular words will be learned as your student acquires better decoding tools. Knowledge of the spelling system will help students teach themselves the tens of thousands of words they will need to learn.

**Beginning the lesson.** Begin a letterbox lesson by explaining to the student what you hope to accomplish in the lessons. You might say, “Our letterbox lessons will help us see that spellings are really maps of the sounds in words. As you learn the secrets of how words are written, you’ll find that spellings really do make sense, and words will become a lot easier to read and remember.”

Then explain and model the particular correspondence you are teaching. For example, to teach the o-e pattern, you might say, “Today we are working with o when the word ends with e. The e on the end of the word is silent, and it usually means for the o to say its name, /O/. For example, here’s the word hop with o all by itself” (spell hop in three letterboxes). “If I add a silent e, I’m sending a signal to say /O/, its name, instead of /a/” (add an e after the third letterbox). “Now I’ve written hope. If I see an o-word that ends in e, that usually means it has the /O/ sound, and the e is silent. For example, I might run into this word” (spell home without the letterboxes). “I’m going to think of the /O/ sound as I read this word: /hO-ml/, home.”

**Spelling the words.** Give the student only the letter manipulatives to spell the words in your lesson. To save time, collect these letters before the lesson, and put away all your other letters. If you are using double-sided letters, ask the student to turn all the letters to the lowercase side. Place the letterbox set that matches the first word to be spelled before the student. Use the letterbox set with the same number of cells as the number of phonemes in the word, not necessarily the number of letters. For example, the correct box for the word hope has three cells because the spoken word hope has three phonemes, /h/ /O/ /p/.

Ask the student to spell the first word (say, am) by placing the letter manipulatives in the two-cell letterbox. If the student is successful in spelling a word, recognize that success and move on to the next word. Do not ask a student to sound out and blend a word he or she just spelled; your student will simply repeat it rather than working out its pronunciation. However, if you ask the student to read it later in the lesson,

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**Summary of the letterbox lesson**

1. Design your lesson around a single new correspondence the child needs and is ready to learn. This is usually a vowel spelling.
2. Create a set of 3 - 12 simple, regular, one-syllable words that illustrate this correspondence. Omit words that involve irregular spellings or any correspondences your student doesn’t know. For the easiest letterbox lesson, begin with two -phoneme words that start with vowel (e.g., up).
3. Use words with three, four, five, or even six phonemes as your student gains decoding power.
4. Place all letters to be used in the lesson in front of the student. Put aside all other letters.
5. Explain the new correspondence. Make sure the student can identify its phoneme and understands its spelling. Model how to spell and read a couple of example words.
6. Have the student spell each word in the appropriate letterbox set. The letterbox set shows the student how many phonemes to look for in the spoken word and to represent in the spelling. Digraphs (e.g., th, ea) are placed in a single box, and silent e’s are placed after the final box.
7. As each word is spelled, compliment the student and move on to another one.
8. If the student misspells a word, pronounce what was written and ask for a correction. If the student can’t make the correction, model the spelling and come back to that word after the other words are spelled.
9. After all the words have been spelled, put away the letterboxes, spell the same words for the student, and ask the student to read each word.
10. If the student is unable to read a word, try uncovering part of the word at a time, or help the student blend the vowel first. If the student is unable to resolve the word after brief help, model the decoding and come back to that word after the other words are read.

Note: A letterbox lesson requires approximately 10 minutes to complete.

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he or she will apply new information to decode the word.

A special adaptation is necessary to introduce silent e patterns in letterbox lessons, e.g., that the vowel i followed by a consonant and silent e usually signals /ai/ (long i). In such lessons, the silent e is placed after the final letterbox. Silent e does not occupy a box because it does not represent a phoneme in the word; rather, it signals the vowel to “say its name.” Words lists for silent e lessons should include a mix of short- and long-vowel words so that the student can understand the function of silent e as a long-vowel signal.

Letterbox lessons often introduce correspondences that require more than one letter, including consonant digraphs (ch, sh, th, ck, ng, tch, dge, etc.), vowel digraphs (ai, ay, ee, ea, igh, ou, ow, ew, oo, etc.), vowel diphthongs (oi, oy, ou, aw, au, ow, etc.), and r-controlled vowels (ar, er, ir, or, ur, etc.). The student should bunch the letters representing each phoneme into a single letterbox. Again, it may be helpful at first to tape multiletter correspondences together to help the student remember that they represent a single phoneme. After the student has used the digraph correspondence a few times, remove the tape so that the student selects and groups the letters independently.

Dealing with misspelled words. If a student spells a word incorrectly, usually the most helpful response is to (a) pronounce the misspelled word exactly as it is written and (b) ask the student to fix the spelling. If necessary, (c) model and explain the correct spelling, and (d) come back to that word a few minutes later.

Sometimes a student simply needs time for self-correction. For instance, when Shantae spelled stuck as “stuck,” she corrected herself after studying what she had written. At other times, it helps to model the spelling for the student by pronouncing what the student has misspelled. “You spelled bets. I’ll show you how to spell best.” And modeling how to spell the original word, thinking aloud about the phonemes in the word and the order they are heard. In contrast, asking the student questions (“What sound comes first?”) is often confusing and counterproductive.

Invented spellings that preserve the order of phonemes are correct for the purposes of a letterbox lesson. For example, if a student spells the word bell as “bel,” each phoneme has been represented. The teacher can add a second l as she compliments the successful spelling, telling the student that the double-l spelling is one people have agreed on. When one of our first graders devised the spelling “banc,” her tutor complimented the invention and gracefully edited it to bank.

Reading the words. In part two of the letterbox lesson, the student reads the words he or she has spelled without the letterboxes. Letterboxes are scaffolds for spelling words; they do not help the student read words. Tell the student, “You spelled all the words. Now it’s my turn to work. You tell me what I’m spelling.” Then the teacher uses the letter manipulatives to spell each of the words for the student read.

Using the same list of words, have the student read each of the words previously spelled. To expedite this part of the lesson, the teacher may present the words on a list or on index cards. The critical learning factor is that the student read the words previously spelled after a lapse of time to transfer the knowledge gained in spelling to the task of reading the words.

If the student is having trouble reading a word, a helpful scaffold is to cover part of the word to simplify the task. For example, if the student is struggling with the word shut, cover part so that only the sh digraph is visible. After the reader pronounces /sh/, uncover the rest. This “cover-up” strategy is widely applicable in helping children decode unrecognized words.

Eldredge (1995) explains an effective vowel-first blending technique that works well with letter manipulatives. First, help the reader isolate and give the sound of the vowel (e.g., the /a/ in shut). Then lead the student to blend the initial consonant(s) with the vowel (e.g., /sh/a/ in shut). Finally, help the student blend the onset-vowel chunk to any remaining consonants at the end of the word (e.g., /sh/a/-/sh/). This technique has the virtue of working with only two chunks at a time, and the particular sequence minimizes phoneme distortion to facilitate blending. Physically moving the letter manipulatives apart or together helps the student focus on the relevant chunks.

If the student is unable to read a word previously spelled, model and explain how to decode the word. Begin with the vowel, blend the initial consonant to the vowel, and blend the consonant-vowel chunk to any consonants after the vowel. Again, we have found that asking a student questions when he or she is struggling to read a word usually adds to the frustration. After working through the other words on your list, have your student return for another shot at the troublesome word.

If letterbox lessons do not lead to reading connected text, there is little likelihood that the student will apply new correspondences in ordinary reading and writing. Students will adopt decoding strategies only when they work to unlock unfamiliar written words in stories (Adams, 1990). For decoding to work, early texts must be composed of words decodable given the correspondences a student has learned (Juel & Roper/Schneider, 1985). One series that develops vowel knowledge is the Phonics Readers from Educational Insights (1990). These inexpensive books progress through short-vowel and long-vowel spellings with colorful illustrations and surprisingly engaging stories, given the constraints of vocabulary control.

Most children take pleasure in their success with well-designed letterbox lessons. They often look forward to the lesson as a game they can consistently win. However, other students may say the lesson is “boring.” This probably means that the student was confused by a difficult lesson and feels frustrated. Future lessons can be salvaged by making them easier: using fewer letters, focusing on a single vowel, selecting simpler words, and reviewing the identities of the phonemes for each new correspondence. Make sure that the student is not expected to spell irregular words or use correspondences he or she hasn’t learned. If the lesson is as simple as possible and the student still isn’t catching on, it may be necessary to provide more basic work in phoneme awareness to help the student gain alphabetic insight (Murray, 1998).
A letterbox lesson

This transcript illustrates an early letterbox lesson that Theresa carried out with her daughter Alex, then only 4 years old.

Theresa: Today we are going to work on the /a/ sound. That's a sound of a crying baby, /aaaa/. We spell that sound with letter a. Okay, are you ready to spell some words?

Alex: Yep.

Theresa: (Places three letterbox set and all the letters for the lesson in front of Alex: c, l, m, g, f, t, p, h, and a.) Okay, hat. She wore a lovely hat.

Alex: Hat...hat.../h/.../h/ (places h in first box)...hat (places a in second box, then t in the last box). Hat.

Theresa: Hat (stressing /a/). Okay, very good. Okay, are you ready for the next word? You have to take those letters off. (Alex takes letters off the boxes.) The next word is going to be can.

Alex: Can? Okay.

Theresa: I want a can (stressing each phoneme) of soda.

Alex: (Places the c and a in first and second boxes appropriately.) Which one?

Theresa: Can (stressing each letter).

Alex: Which one?

Theresa: Listen to the sounds: /c/a/n/ (very slowly sounded out with extra stressing on the /n/).

Alex: Can (looks through the letters).

Theresa: Cannnn. (Alex places the /n/ in the last box) There you go, cannnn. Okay, are you ready for the next one?

Alex: Uh-huh.

Theresa: Okay, you gotta take those off. (Alex takes the letters off of the boxes.) Fat. The doggie was very fat.

Alex: Fat.

Theresa: Fat.

Alex: Fat.../f/.../a/.../a/.../a/.../t/ (looks through letters, picks up and places f in first box, then a and t respectively). Fat, fat.

Theresa: Fat. Okay, take them off, we have to spell the next one. (The letters are removed.)

Alex: Yep.

Theresa: Man.

Alex: /Mmml./

Theresa: My daddy is a man...man (stressing each phoneme).

Alex: (Places each letter correctly.) There.

Theresa: Man. Okay, the next word...you gotta take those off (the letters are removed). Okay, last word: lap. Come sit in my lap.

Alex: Okay (chooses correct letters and begins placing them).

Theresa: Lap. Come sit in my lap, and I'll read you a story. Lap (stressing each sound).

Alex: Lap (finishes places the letters), L, a, p, lap.

Theresa: Okay, now I'm going to put the letters out, and you have to tell me what the word is. You ready?

Alex: Uh-huh.

Theresa: Let's move these. (The boxes are moved, then the letters c, a, and t are placed in front of Alex.

Alex: Cat.

Theresa: Good. (The letters c, a, and n are placed before Alex.)

Alex: Can.

Theresa: Good. Okay, are you ready? (The letters f, a, and t are presented).

Alex: Fat?

Theresa: Good. Can you tell me what this says? (Man is spelled).

Alex: Man!

Theresa: Okay, this is a tough one. (The letters n, a, and p are presented. The word nap was not spelled earlier in the lesson. Theresa is trying to see if Alex can form a new word by sounding out letters she knows about, but has not yet used).

Alex: (pause) /Nn...a...p/...nap!

Theresa: Good. Okay, last one, then I'll let you play with the letters (Hat is spelled).

Alex: Haaat.

Theresa: Very good.

Theresa then selected a book, Hop on Pop by Dr. Seuss, and focused on the pages that contained many words similar to those Alex had spelled and read in the letterbox lesson. Alex read the simple text accurately and enjoyed the story.
Effectiveness of letterbox lessons

The letterbox lesson is an application of research on how children turn unfamiliar words into sight words (Ehri, 1991, 1995). Variations on the technique have helped delayed readers make dramatic reading gains (e.g., Bryant & Bradley, 1985). We have not yet conducted controlled experiments comparing the progress of students learning with letterbox lessons with that of students receiving other instruction, but we have gathered and analyzed pretest and posttest results with low achieving first graders in public schools. These students were tutored by undergraduate education majors in lessons modeled after the Reading Recovery program. Children were seen twice a week for half-hour sessions, a total of 12 meetings, to supplement their classroom work in reading. Using progress through graded word lists as a benchmark, students receiving letterbox instruction in a program of reading and writing meaningful text gained an average of 1.1 reading levels. This means, for example, that emergent readers tended to advance to preprimer levels, that primer readers tended to succeed with first-grade words, and so forth. Informally, tutors have reported that their students show great excitement and enhanced motivation for learning when they gain alphabetic insight.

The letterbox lesson at home. The letterbox lesson is ideally suited to individual tutoring because the correspondences introduced in each lesson can be tailored to the specific gaps in correspondence knowledge revealed through continual assessment. The technique holds promise for instruction with classroom groups as well. The lesson could be readily adapted by creating large-scale letterboxes and letter manipulatives for teacher explanation and modeling, and by distributing sets of letters and letterboxes for individual response.

Theresa Lesniak, an Auburn senior majoring in elementary education and the second author of this article, practiced her letterbox techniques with her two young daughters at home. She reports,

I became a true believer in the letterbox lesson when I used it to teach my daughters to read. My 6-year-old, Samantha, could read many small words due to repetition, but had trouble decoding longer, unfamiliar words. Any word that contained a two-consonant blend, in particular tr, was troublesome for her. After only a few experiences using the letterbox lesson, she would concentrate on all of the letters in a word. She could then sound out various unknown words by paying particular attention to each letter and the corresponding phoneme.

Even my 4-year-old, Alex, began to decode and blend words using the method. She knew her letters and phonemes, but she would look at the first letter in a word and guess the word, instead of reading it. At the time, I felt she was too young developmentally to be able to decode and blend words. However, Alex took an interest in the letterbox lesson when she observed her older sister having fun working with letters. I decided to see if my 4-year-old would like to try the lesson too.

Alex and I worked on small words, such as cat, man, and nap. I was amazed when she began filling the boxes with the correct letters. She is by no means an expert at reading, but she does pay attention to each letter in a word and is able to decode and blend shorter words. For example, she knew the word cat by heart, logographically. In the past any word that started with a c would have been termed cat. After working with the letterbox lesson I placed the word cin in front of Alex. She knew it was not cat and slowly sounded out each letter to find the correct word.

While Theresa’s children have been exceptionally well prepared by home literacy experiences, the letterbox lesson may be a practical means by which parents can provide decoding instruction for their children. The materials are inexpensive, the lesson time is brief, and the techniques can be learned without extensive training. More important, the systematic and explicit decoding instruction of the letterbox lesson can be nested within meaningful experiences, reading storybooks, and experimenting with emergent writing.

Murray teaches courses in literacy education and directs the Reading Clinic at Auburn University in Auburn, Alabama, USA. Lesniak is a student majoring in education at Auburn University.

References