Making Words: Enhancing the invented spelling-decoding connection

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Since the pioneering work of Read (1971, 1975) and Beers and Henderson (1977), young children's invented spellings (incorrect attempts to spell words while writing) have been recognized as powerful indicators of their developing phonemic awareness and knowledge of sound-letter relationships (Adams, 1990; Henderson, 1990). In recent years, a number of studies have documented a strong general relationship between spelling ability and the ability to identify words in reading. Zutell and Rasinski (1989) discovered that spelling variables are highly related to children's oral reading accuracy, rate, and phrasing. Similarly, Gill (1989) determined that the spelling and word recognition abilities of first, second, and third graders are closely related processes. Hall (1991) demonstrated that second-grade students' ability to spell words correctly is a near-perfect predictor that they will also be able to read those words.

Research suggests that invented spelling and decoding are mirror-like processes that make use of the same store of phonological knowledge. Morris and Perney (1984), Mann, Tobin, and Wilson (1987), and Ferroli and Shanahan (1987) found children's developmental spelling in kindergarten or beginning
first grade to be a strong predictor of reading achievement at the end of first grade. In complementary fashion, Nelson (1990) discovered that early phonics instruction accelerates students' development of correct short vowel spelling.

In addition to providing a window on the growth of children's phonetic knowledge, invented spelling during writing is increasingly seen as possessing reading instructional value as well (Clay, 1991; Cunningham, 1991a). Having young students engage in invented spelling during writing not only helps them become better spellers but also facilitates their development of decoding ability in reading (Adams, 1990; Chomsky, 1971; Richgels, 1987). Clarke (1988) compared the effectiveness of invented spelling versus an emphasis on correct spelling in first-grade classrooms. The children who had invented spellings were superior to the others on measures of word decoding at the end of the year. In general, as children improve in the phonetic sophistication of their invented spellings, their later success in learning to read words becomes much more likely (Mann et al., 1987; Morris & Perney, 1984).

More and more children in kindergarten and first grade are being encouraged to engage in writing with invented spelling, in part at least to help develop their decoding ability in reading. While many children will benefit from this practice, some authorities (Adams, 1990; Clay, 1991) have expressed the concern that at-risk readers and writers will not learn enough from writing with invented spelling because of its indirect nature and because these students often lack phonemic awareness and knowledge of letter-sound/sound-letter relationships. This concern has led some researchers to guide students' invented spelling in the early stages to help them achieve phonemic abilities they might not otherwise develop.

In Reading Recovery, for example, part of each lesson is dedicated to guided invented spelling activities. Reading Recovery teachers use Elkonin boxes, word building with a subset of magnetic letters, and story writing with listening for the sounds in words to guide invented spelling (Clay, 1985). Such guidance provides a "slicing" of the invented spelling task. Because the number of phonemes is limited and the task of attending to them is made more explicit, a guided invented spelling task is more likely to help children develop phonemic awareness than is unguided invented spelling.

The attempt to apply some of the principles of Reading Recovery to a group setting, as well as the desire to enhance the benefits of writing with invented spelling, has led us to the development of a group guided invented spelling instructional strategy that we call Making Words. Our strategy, however, should not be used instead of writing with invented spelling; rather, Making Words should be used along with regular writing activities to increase the likelihood that children will develop decoding ability. Writing with invented spelling should be a regular part of every basic reading program.

Making Words is currently being used by a number of first- and second-grade teachers who are doing it daily along with daily writing with invented spelling. While Making Words has only been investigated as one component of multimethod, multilevel reading instruction, initial results of this combination are very encouraging (Cunningham, 1991b; Cunningham, Hall, & Defee, 1991).

**How to plan and teach Making Words lessons**

Making Words is an activity in which children are individually given some letters that they use to make words. During the 15-minute activity, children make 12-15 words, beginning with two-letter words and continuing with three-, four-, five-letter and longer words until the final word is made. The final word (a six-, seven-, or eight-letter word) always includes all the letters they have that day.
Table 1
Steps in planning a Making Words lesson

1. Decide what the final word in the lesson will be. In choosing this word, consider its number of vowels, child interest, curriculum tie-ins you can make, and letter-sound patterns you can draw children's attention to through the word sorting at the end.
2. Make a list of shorter words that can be made from the letters of the final word.
3. From all the words you listed, pick 12-15 words that include: (a) words that you can sort for the pattern(s) you want to emphasize; (b) little words and big words so that the lesson is a multilevel lesson; (c) words that can be made with the same letters in different places (e.g., barn, bran) so children are reminded that when spelling words, the order of the letters is crucial; (d) a proper name or two to remind them where we use capital letters; and (e) words that most of the students have in their listening vocabularies.
4. Write all the words on index cards and order them from shortest to longest.
5. Once you have the two-letter, three-letter, etc., words together, order them further so that you can emphasize letter patterns and how changing the position of the letters or changing or adding just one letter results in a different word.
6. Store the cards in an envelope. Write on the envelope the words in order and the patterns you will sort for at the end.

Table 2
Steps in teaching a Making Words lesson

1. Place the large letter cards in a pocket chart or along the chalk ledge.
2. Have designated children give one letter to each child. (Let the passer keep the reclosable bag containing that letter and have the same child collect that letter when the lesson is over.)
3. Hold up and name the letters on the large letter cards, and have the children hold up their matching small letter cards.
4. Write the numeral 2 (or 3, if there are no two-letter words in this lesson) on the board. Tell them to take two letters and make the first word. Use the word in a sentence after you say it.
5. Have a child who has the first word made correctly make the same word with the large letter cards. Encourage anyone who did not make the word correctly at first to fix the word when they see it made correctly.
6. Continue having them make words, erasing and changing the number on the board to indicate the number of letters needed. Use the words in simple sentences to make sure the children understand their meanings. Remember to cue them as to whether they are just changing one letter, changing letters around, or taking all their letters out to make a word from scratch. Cue them when the word you want them to make is a proper name, and send a child who has started that name with a capital letter to make the word with the big letters.
7. Before telling them the last word, ask "Has anyone figured out what word we can make with all our letters?" If so, congratulate them and have one of them make it with the big letters. If not, say something like, "I love it when I can stump you. Use all your letters and make ________ ."
8. Once all the words have been made, take the index cards on which you have written the words, and place them one at a time (in the same order children made them) along the chalk ledge or in the pocket chart. Have children say and spell the words with you as you do this. Use these words for sorting and pointing out patterns. Pick a word and point out a particular spelling pattern, and ask children to find the others with that same pattern. Line these words up so that the pattern is visible.
9. To get maximum transfer to reading and writing, have the children use the patterns they have sorted to spell a few new words that you say.

Note: Some teachers have chosen to do steps 1-7 on one day and steps 8 and 9 on the following day.

and children are usually eager to figure out what word can be made from all these letters. Making Words is an active, hands-on manipulative activity in which children discover sound-letter relationships and learn how to look for patterns in words. They also learn that changing just one letter or even the sequence of the letters changes the whole word.

Planning a Making Words lesson

To plan a Making Words lesson, begin with the word you want to end with (spider in the following lesson). Write the word you want to end with on an index card and then consider what other words you could have the children make with some of the same letters. There are always more words possible than
can be made in a 15-minute lesson. Select the words and the order in which they are to be made so that children begin to see that when you change or add a letter, the word changes in a predictable way. At the end of each lesson, draw children's attention to certain spelling patterns and use these words to help them think about how they might spell words needed in their own writing. Table 1 presents a detailed set of steps to be taken when planning a Making Words lesson.

Teaching a Making Words lesson

Following is an example of a Making Words lesson done in one first-grade classroom in March. Table 2 presents a summary of the steps involved in teaching a Making Words lesson.

For this particular lesson, each child had four consonant letters (d, p, r, s) and two vowel letters (i, e). In a pocket chart at the front of the room, the teacher had placed large cards with the same six letters. Her cards, like the small letter cards used by individual children, had the uppercase letter on one side and the lowercase letter on the other side. The consonant letters were written in black, and the vowel letters were written in red.

The teacher began by making sure that each child had all the letters needed. “What two vowel letters will we use to make words today?” she asked. The children held up their red i and e and responded appropriately. “Why are vowels important?” she asked. “Because every word has to have at least one,” responded the children in chorus.

The teacher then wrote the numeral 2 on the board and said, “The two-letter word I want you to make today is Ed. I have a cousin whose name is Ed.” She watched as the children quickly put the letters E and d in their holders and was glad to see most children proudly displaying the uppercase E. The children knew that she usually put at least one name in every Making Words lesson, and they were showing that they knew names should have a capital letter at the beginning. Then the teacher sent a child who had correctly made Ed at his seat to the pocket chart to make Ed with the big letters. She congratulated the child for starting it with a capital letter. The teacher then put an index card with the word Ed written on it along the chalk ledge.

Next the teacher erased the 2 and wrote a 3 on the board. “Add just one letter to Ed to
make the three-letter word red,” she instructed, noticing that some (but not all) of the children turned the E card over to display the lowercase e while making red. She chose a child to make red with the big pocket chart letters. When he turned the E over in the pocket chart, she asked him why he had done that, and he explained, “You can’t have a capital letter in the middle of a word!” The lesson continued with all children making words with their individual letter cards, with selected children going to the pocket chart to make the word, and with the teacher putting a card with that word along the chalk ledge.

Later the teacher asked the children to make another three-letter word, pie. While making pie, many children quickly put the p and the i in their holders, but they noticed that they had only two letters. You could see them looking at their remaining letters and trying to decide if they should add the d, s, r, or e to spell pie. Most of the children made the right choice. When pie was made at the pocket chart, the teacher reminded the children that sometimes it takes two vowel letters to spell a word even though you may hear only one of the vowels.

The teacher erased the 3, wrote a 4 on the board, and asked the children to add just one letter to pie to make pies. Next they changed one letter to make dies. At this point the teacher said, “Now, don’t take any letters away and don’t add any, but just change your letters around and like magic you can change your dies into side.” She watched as the children thought about which letter to move in order to perform this magic trick. After making side, they changed it to ride, then to ripe, and then to rise.

The teacher erased the 4 and wrote a 5, and the children used five of their letters to make the words pride and drips. As a child was making drips at the pocket chart, many of the other children were manipulating all their letters trying to come up with another word. They did so because they knew that each lesson ended with a word that used all their letters, and they always liked to figure it out before the teacher said it. Today, however, the children were stumped. The teacher told them to take all six letters and make a bug that they were going to read about in science—spider.

To conclude the lesson and draw children’s attention to letter patterns, the teacher asked the children to look at the words in the pocket chart: Ed, red, rid, sip, pie, pies, dies, side, ride, ripe, rise, pride, drips, spider. She picked up Ed and asked, “Who can come up here and hand me a word that rhymes with Ed?” A child handed her the word red. She then had someone find the two words that rhymed with side—ride and pride. The children spelled the rhyming words aloud in unison and decided that these words all had the same spelling pattern and that they rhymed. The teacher reminded the children that words having the same spelling pattern usually rhyme and that knowing this helps many good readers and writers read and spell words. The teacher then asked, “What if I wanted to spell fed?” What words that you have made today rhyme with fed?” The children decided that fed rhymes with Ed and red and would probably be spelled f-e-d. They also decided that slide rhymes with side, ride, and pride and would probably be spelled s-l-i-d-e.

Next the teacher had the children find the three words that ended in s: pies, dies, and drips. She reminded them that an s is often added to a word when you mean more than one, like the word pies. She also stated that sometimes an s is added to a word when it is used in a sentence like The water faucet drips. She then pointed to the words sip, ride, and spider and asked them, if they were writing, how they would spell sips, rides, and spiders.

A beginning Making Words lesson

For the first Making Words lessons, we give the children only one vowel letter, but a different one for each lesson. The vowel letter is always written in red, and the children know they have to use it for every word. Here is a sample first lesson. The children have the vowel letter i and the consonant letters g, n, p, r, and s. Here is a possible set of steps or directives to students to follow in this first lesson:

- Take two letters and make in.
- Add a letter to make the three-letter word pin.
- Change just one letter, and turn your pin into a pig.
- Now change just one letter, and your pig can become a rig—sometimes we call a big truck a rig.
Two-vowel Making Words lessons

In the preceding beginning lessons culminating in the spelling of spring, the emphasis is on how words change as different letters are added and on helping children begin to understand the importance of where in the words letters occur. It becomes much easier to construct Making Words lessons when using two vowels as in the prior lesson in which spider was spelled. Here is another sample lesson with two vowels.

Letters: a e b d n r
Words to make: be bed bad ban Ben bean bead read dear Brad bran brand Brenda

In this lesson, you might want children to notice how the word changes when the vowel is an a by itself, an e by itself, and the ea together. You would end the lesson by sorting the words into these categories and then talking about the letter patterns. Depending on how far along children are in their understanding of letter patterns, you may want to include the word bread and then point out that sometimes the ead pattern has the sound you hear at the end of bead and sometimes it has the sound at the end of bread. In Making Words lessons, the teacher decides which words to have them make and in which order so that children are led to discover the most common spelling patterns and their predictable variations.

Young children will need much practice with the various vowel combinations in order to be able to use them effectively to spell words in their writing. Many teachers teach several lessons in a row that end in different words but that emphasize the same vowel combinations. Here are two more lessons used to help children work with e, a, and ea:

Letters: a e d g n r s
Words to make: an Dan den Ned red read dear near Dean grade garden gardens

Letters: a c c d n l
Words to make: Al ad Ed Ned led lad land lend lean lead deal clean candle

Once children understand that there are five vowels, plan a lesson that has the letter y in it. Make the y letter card in green or some color other than the red and black used for the others. Children notice immediately that the y
is a different color, and you can explain that \( y \)
is sometimes a vowel and sometimes a consonant. Following is a lesson that introduces \( y \) as both vowel and consonant. After making the words, the children sorted them according to whether \( y \) was a consonant letter or a vowel letter and noticed that when \( y \) is a vowel letter it can represent the sounds in \textit{try} and \textit{country}.

Letters: \textit{ouycnrt}
Words to make: you toy try cry your Troy
corn corny court count
county country

Additional sets of letters and words to spell can be found in the Appendix to this article.

**Making Big Words lessons**

Most of the lessons just described would be used with first- or second-grade students. We have also done Making Words lessons with intermediate-grade children and with older remedial readers. We call these lessons Making Big Words. For Making Big Words lessons, we print the letters on strips of paper (vowels followed by consonants in alphabetical order, so as not to give away the big word) and duplicate these. The children cut their strips into letters and manipulate these to make words. Many big words contain the letters to make hundreds of other words. We pick and choose which words we want them to make and the order in which we want them to make them so as to maximize the possibilities for the children to see patterns.

Just as in Making Words, we end each Making Big Words lesson by sorting the words for a variety of patterns. Sometimes this sorting takes place in another lesson on the day after the words have been made. Because there are so many words that can be made with these letters, we give the children 2 minutes at the beginning of each Making Big Words lesson to manipulate the letters and see what words they can come up with. After this “free play,” we direct them to make certain words in a certain order so that they will see how words change in predictable ways as you change and add letters. Here is a sample Making Big Words lesson.

Letters: \textit{ceiiolnsv}
Words to make: vest vent sent event novel
inlet invite invest vision
violin violet violent novelist
novelties television
Sort for: sion vion ent

**Why Making Words works**

The classrooms in which Making Words and writing with invented spelling are being used side by side are having encouraging results on the decoding abilities of the students without traditional phonics instruction (Cunningham, 1991b; Cunningham et al., 1991). Making Words is apparently a multi-level activity for children. Those who lack phonemic awareness seem to develop that awareness through participation in the lessons. Because the students listen intently for the sounds in words in order to make them and then try to remember or select the letters that can represent those sounds, Making Words has similarities to the most effective training in phonemic awareness (Ball & Blachman, 1991; Ehri & Wilce, 1987). Those children who have phonemic awareness learn letter-sound correspondences a few at a time, and they learn other strategies and insights about decoding and spelling phonetically regular words.

If you ask the children what they think of Making Words, they will probably answer, “It’s fun!” From the moment that they get their letters, they begin moving them around and making whatever words they can. They are particularly eager to figure out the word that can be made with all the letters. Once the children begin making the words the teacher asks them to make, the activity is fast paced and keeps the children involved. They also enjoy the sorting. Finding words that rhyme, words that begin alike, words that can all be changed into other words just by moving around the
letters, and other patterns is like solving a riddle or a puzzle. Once children have been making words and sorting for several weeks, they begin telling the teacher what patterns the words should be sorted for.

Making Words is a powerful activity because within one instructional format there are endless possibilities for discovering how our alphabetic system works. It is a quick, every-pupil-response, manipulative activity with which children get actively involved. By beginning every Making Words activity with some short easy words and ending with a big word that uses all the letters, the lessons provide practice for the slowest learners and challenge for all.

References

Appendix: Sample Making Words lessons

These lessons go from very simple (5-6 letters with only one vowel) to moderate (6-8 letters with 2 vowels) to complex (at least 9 letters, unlimited vowels). List the letters with all the vowel letters first and then all the consonant letters in alphabetical order so as not to give any clues to the big word that will end the lesson. Words separated by a / indicate places in the lesson where the same letters can be rearranged to form a different word.

Lessons using only one vowel:
Letter cards: u k n r s t
Words to make: us nut rut run sun sunk runs ruts rust tusk stun stuck trunk trunks
Sort for: rhymes s pairs (run runs; rut ruts; trunk trunks)
Letter cards: o r s t
Words to make: or top/pot rot port stop/spot sorts stops/spots sport sports
Sort for: o r s t pairs

Letter cards: e d n p s s
Words to make: Ed Ned/end/den pen pens dens/send sped spend spends
Sort for: rhymes names s pairs

Letter cards: a h l p s s
Words to make: Al pal/lap Sal sap has/ash sash lash pass pals/laps/slap slaps slash splash
Sort for: rhymes names s pairs

Letter cards: a c c h r s t
Words to make: art/tar car cat cart cars/scar star scat cash rash trash trash chart scratch
Sort for: a ar rhymes

Letter cards: i c k r s t
Words to make: is it kit sit sir sick Rick tick skit skirt stick trick tricks
Sort for: i ir sk rhymes

**Lessons with two vowels, 6-8 letters:**

Letter cards: e u d h n r t
Words to make: red Ted Ned/end/end her hut herd turn hunt hurt under hunted turned thunder
Sort for: u ur e er ed pairs

Letter cards: e u l r s t t
Words to make: us use/Sue let set true rule test rest rust trust result turtle turtles
Sort for: e u u e rhymes

Letter cards: a e c h p r t
Words to make: at art car cat hat chat cart heat heap cheap cheat/teach peach preach chapter
Sort for: c h ch a ar rhymes

Letter cards: a o c r r s t t
Words to make: at rat rot cot cat/act coat cast cost coast toast roast actor carrot carrots tractors
Sort for: a o o a rhymes act actor

Letter cards: a e l n p s t
Words to make: pat pet pen pan pal pale/peal pets/peast pane plan plane plant plate/pleat planets
Sort for: a e e a-e ppl rhymes

Letter cards: a u y d h r s t
Words to make: say day dry try shy stay tray rust dust duty dusty rusty stray sturdy Thursday
Sort for: a y y-try dusty tr st

Letter cards: a u b b h s t t
Words to make: us bus/sub tub/but bat/tab hut hat that bath stab tubs/stub bathtubs
Sort for: a u th rhymes

Letter cards: e i d f n r s
Words to make: Ed red rid end fin fine fire ride side send dine diner rides fires friends
Sort for: c i i-e s pairs rhymes
Letter cards: a e h n p r t
Words to make: an at hat pat pan pen pet net net eat heat neat path parent panther
Sort for: a e e a rhymes
Letter cards: e i k n s t t
Words to make: it in ink kit sit net ten tin tent skit skin sink stink kittens
Sort for: i e sk rhymes
Letter cards: a e g m n s t
Words to make: man men met mat Nat net ten tan mean mane mate meat neat stem steam magnets
Sort for: a e e a e rhymes
Letter cards: e e n p r s t
Words to make: see ten teen tree step pest rest rent sent steep stern enter serpent present
Sort for: e e e rhymes
Letter cards: a e g n r s t
Words to make: ant age sag rag rage star stag stage great grate grant agent range strange
Sort for: s t gr g-rag rage rhymes

Lessons for big words:

Letters on strips: a a a e i b c h l l p t
Words to make: itch able cable table batch patch petal label chapel capital capable alphabet alphabetical
Sort for: e l e al itch atch
Letters on strips: a a e e u h k q r s t
Words to make: use heat rake take shake quake quart earth reuse square quaker retake reheat/heater karate request earthquake
Sort for: qu re ake-take quake shake retake earthquakes
Letters on strips: a e e i o g n n r t
Words to make: got gene genie giant tiger great grate orange nation ration reign enraged entire engine ignorant nitrogen tangerine generation
Sort for: e n tion g g (got gene)
Letters on strips: e i u m n n r s s t t
Words to make: sun set tie use rest rise trust untie unrest misuse sunset sunrise sunnier sunniest mistrust instruments
Sort for: un mis er est sun sunnier sunniest sunset sunrise
Letters on strips: e o o y c c l m r s t
Words to make: room cost sore rose rosy loot lose loser motor storm roomy cycle cycler stormy sorely costly looter motorcycles
Sort for: ly y (rose rosy; room roomy) er
Letters on strips: a e e e u m p r r t t
Words to make: treat trump temper tamper repeat mature mutter trumpet pretreat repeater tamperer mutterer trumpet er premature temperature
Sort for: p e r t u re er
Letters on strips: e e o o c d k p r w
Words to make: row cow pow owe owed word work wood cook coop cord cork droop power powder cowpoke woodpecker
Sort for: oo (wood coop) ow (cow owe) or (work cork)