

Morphological Awareness: One Piece of the Literacy Pie

Morphological awareness is a skill that helps students read and spell. When researchers have studied different skills that contribute to student performance on reading and spelling tasks, morphological awareness ability often is one of the skills that predicts how well students will perform on those tasks (e.g., Bowers, Kirby, & Deacon, 2010; Goodwin & Ahn, 2013). It is a skill that helps students problem-solve words they do not know how to read and spell. For reading, this is especially important when students are reading textbooks with academic language so that they can gain the knowledge they need in the subject areas they study.

What is Morphological Awareness?

Morphological awareness is explicitly thinking about the smallest units of meaning in language, which are called *morphemes*. These units include root words that can stand alone as words, prefixes, suffixes, and bound roots, which are roots that must have a prefix or suffix added to become a word.

Root words	cat, jump, three, press
Prefixes	un, re, mis, pro, sub
Suffixes	ing, ed, ly, ment, ful
Bound roots	ject, rupt, mit, pute

Why Do Parents and Teachers Need to Know About Morphological Awareness?

Morphological awareness is important because we use morphemes to convey meaning when we talk or write to listeners or readers. Often when we read or write, we need to think about the morphemes in words. For example, for a young student, it may be confusing to remember how to spell the past tense suffix in a word such as *jumped*, because the last sound in that word sounds like a /t/ sound. However, if the student thinks about what the word means (past tense)

and the student knows that *ed* is the suffix most often used to change a word to past tense, she will know how to spell the suffix in *jumped* correctly. In this case, she is using *morphological awareness* to help her spell the word. The same can be true when reading. The same student may come across a word she has never seen before in a book – for example, *refriended*. If she knows the meaning of the prefix *re-* (again, back), the meaning of the root word *friend*, and the meaning of the suffix *-ed* (past tense), she can put those meanings together to get an idea of the whole word's meaning (became a friend again).

Another reason morphological awareness is important is because it helps students identify and understand difficult academic vocabulary. In textbooks, a good portion of the vocabulary words tend to be unfamiliar words composed of multiple morphemes (that is, root words plus one or more suffixes or prefixes). Some have estimated that for every one simple word in a text, there are four multiple-morpheme words. Thus, if a student has strong morphological awareness skills, he can problem-solve what these words might mean by thinking about each of the individual morphemes, then “blending” those meanings together to determine the word's meaning (e.g., Anglin, 1993; Kruk & Bergman, 2013; Pacheco & Goodwin, 2013).

How Early Can Teachers and Parents Provide Instruction in Morphological Awareness?

Researchers have discovered that children as young as five demonstrate some implicit morphological awareness. For example, children in kindergarten are able to correctly complete sentences such as, “This is a wug. Now there is another one. There are two of them. There are two _____”. (Berko, 1958). In first grade (approximately 6 years of age), students also

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differentiate their spelling of final consonant clusters (two consonants together, such as -st), depending on whether the word is a one morpheme word (spelling bind as *bid*) versus a two morpheme word (spelling ‘rained’ as *rand*), suggesting some level of morphological awareness (Bourassa, Treiman, & Kessler, 2006; Wolter, Wood, & D’zatko, 2009). Students continue to grow and develop in their morphological awareness throughout the elementary school years (e.g., Apel, Diehm, & Apel, 2013; Berko, 1958; Berninger, Abbot, Nagy, & Carlisle, 2010; Carlisle, 2004; Ku & Anderson, 2003).

Because morphological awareness begins early in childhood, educators can integrate morphological awareness activities into their curricula starting in the primary grades. They also can be prepared to assess morphological awareness in students who seem to be struggling with early reading and spelling to determine whether this particular skill is hindering literacy development. At this time, however, there is no specific formal test (standardized test—comparing the student’s performance to his/her age or grade level peers) of morphological awareness. Parents can play morphological awareness games with their children (see later in this Fact Sheet) to stimulate early morphological awareness development in their children.

How Can Educators Integrate Morphological Awareness into Structured Literacy Instruction?

Educators can easily integrate morphological awareness activities into their reading and spelling curricula. For example, some educators already conduct ‘*word sorts*’ with their students. Word sorts are activities in which students sort individual words into separate columns based on particular commonalities and thereby “discover” a particular pattern or rule. This activity can easily be used to help students discover morphological rules (see Box 1 for an example of

a word sort for discovering the rule for plurals). Once the rule has been verbalized, the educator can encourage students to employ the rule by either searching for words in their text that follow the rule and/or spelling words that follow the rule.

Box 1. Word Sort for Discovering Rule for Spelling Plurals

1) Student is provided set of cards/words and asked to sort them into two columns: *rocks, beaches, porches, apples, boxes, trucks, bears, stores, dogs*

2) Student sorts words into the following two columns:

<i>rocks</i>	<i>beaches</i>
<i>apples</i>	<i>porches</i>
<i>trucks</i>	<i>boxes</i>
<i>bears</i>	
<i>dogs</i>	
<i>stores</i>	

3) Student is asked why the words were sorted into the two columns: “The words on the left – they have only an ‘s’ – it says /s/ or /z/. It means more than one. The words on the right – they mean more than one, too, but they added an ‘es.’ I think we add ‘es’ when we hear that extra /us/ at the end of the word.”

4) Educator: “Yes, you discovered the rule. We add an ‘s’ to words to show more than one. But if the word has an “extra beat” or syllable at the end, or like you said, the /us/, to signal more than one, we add ‘es.’ Great detective work!” Now, let’s look for words in your book that follow that rule.

Another activity that helps students think about root words, prefixes, and suffixes is a “word building” activity. In this activity, students are provided lists containing a number of prefixes, root words, and suffixes. They are asked to choose one prefix, one root, and one suffix (e.g., re- cycle, -er). The students first must define what each of those three morphemes mean (if need be, the educator can help define the three morphemes). The students then blend the prefix, root word, and suffix together to create a word

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(‘recycler’) and define the word. The educator and the students can discuss how the word meaning captures the meanings from the individual morphemes, the spelling of the morphemes, and whether changes (i.e., spelling changes or pronunciation changes) occur when the suffixes or prefixes are attached to the root word, etc. This activity, then causes the students to explicitly think and talk about morphemes: root words, prefixes, and suffixes.

There are many other activities educators can use for helping students use their morphological awareness skills. Besides published studies of interventions that describe tasks used to teach morphological awareness (e.g., Apel & Diehm, 2014), online resources include suggestions from the [University of Michigan](#) and [Language Supports](#).

What Can Parents Do at Home to Facilitate Morphological Awareness?

Given children show some implicit morphological awareness abilities even before they enter first grade, parents can facilitate their children’s morphological awareness skills at home through natural play activities. For example, when playing with their child and the child’s toys, parents can occasionally draw some attention to morphemes that add additional meaning to words that represent the child’s toys. “I have one car, but you have two cars. Cars. I hear the /z/ sound at the end of cars. This tells me there is more than one car.”

Another example involves talking about a specific prefix or suffix, its meaning, and then “playing” with that prefix or suffix by adding it to words that make up real (or nonsense) words. Consider this interchange between a parent and her child:

Parent: “*That is the tallest man I’ve seen in a long time. Hmm, I added -est to tall.*

Tall...est. ‘est’ means the most. That man is the most tall. I said it another way. . . . He is the tallest. If I wanted to say your bedroom was the most clean I’ve seen, I could say it

another way. . . . the cleanest! Cleanest means most clean. Let’s think of another way to say most kind. What do you think is another way to say, most kind?”

Child: “*Kindest?”*

Parent: *Yes! Kindest is another way to say, most kind. What about this? What’s another way to say hardest?”*

Child: “*Most hard.*”

Parent: “*Yes! Most hard is another way to say hardest.*”

Morphological awareness is an important skill that influences and supports reading and spelling. Parents can draw their children’s attention to morphemes during everyday activities and conversations. Educators should integrate morphological awareness activities as part of a multi-linguistic structured literacy approach to teaching students reading and spelling. As students become more morphologically aware, they will be able to apply this awareness to their reading and spelling of more complex, multi-morphemic words, leading to better comprehension of what they read and more breadth in the language they use in their writing.

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