Ph Is for Phonics: The Great Decoding Debate

by Matthew Davis, PhD.

Another installment from Dr. Matthew Davis, Director of Reading at the Core Knowledge Foundation. In this article, Dr. Davis covers the age-old debate between phonics and whole-word advocates and delves into the complexities involved in developing a systematic, effective program for teaching decoding. He also reviews some of the research at the heart of the new basal reading program currently under development at the Foundation. Official piloting of the CK reading program is slated to begin in the fall of 2007.

In the **last article** I wrote for this newsletter, I discussed what researchers call the "**simple view of reading**." The simple view of reading holds that *reading comprehension* depends crucially on two key factors. One is *decoding skills* and the other is *language comprehension ability*.

Core Knowledge is currently developing a reading program for the early grades that will effectively address both of these key factors. The Skills Strand of our program will allow teachers to deliver a program of systematic decoding instruction, while the Listening and Learning Strand will provide a sequence of read-alouds calculated to boost language comprehension ability by building vocabulary, background knowledge, and cultural literacy. The ideas behind the Listening and Learning Strand have been much discussed in this newsletter over the past few years and in books and articles by E. D. Hirsch, Jr. In this article, I'd like to introduce the approach we will use in the Skills Strand, especially in the early elementary grades.

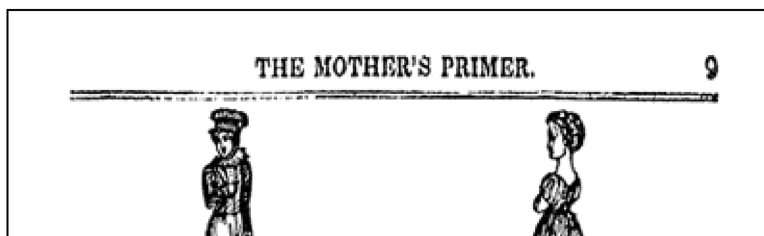
The question of how schools ought to teach decoding skills has been passionately debated in the U.S. for almost two hundred years. In fact the debate over reading pedagogy is older than the public school system! The two major parties in the debate are advocates of phonics and advocates of whole-word reading.

Phonics advocates believe beginning readers need to be taught to pay attention to word parts, especially single sounds called phonemes. They think it is important that children be made aware of sounds in words and that they be given direct and systematic instruction on the correspondences between letters and sounds.

By contrast, whole-word advocates discourage students from focusing on parts of words and encourage them to focus on words as wholes. They argue that the word is a meaningful unit, while the phoneme is not, that phonics rules are unreliable, and phonics instruction is boring, unnatural, and unnecessary—a form of "drill and kill."

Through its history, whole-word instruction has assumed slightly different forms and traveled under different names. The old "look, say" readers featuring Dick and Jane were based on a whole-word approach to reading. The more recent "whole language" movement was also premised on a whole-word view of reading with the addition of some supplemental ideas.

Phonics and whole-word advocates have been arguing with each other, sometimes very acrimoniously, ever since the publication of Gallaudet's *The Mother's Primer*, a pioneering whole-word primer, in 1836. Those who are interested in the debate will find a short, informative, and well-reasoned history in Mitford Mathews, *Teaching to Read, Historically Considered*. (This book is out of print but can be ordered from Amazon.com and used book websites.)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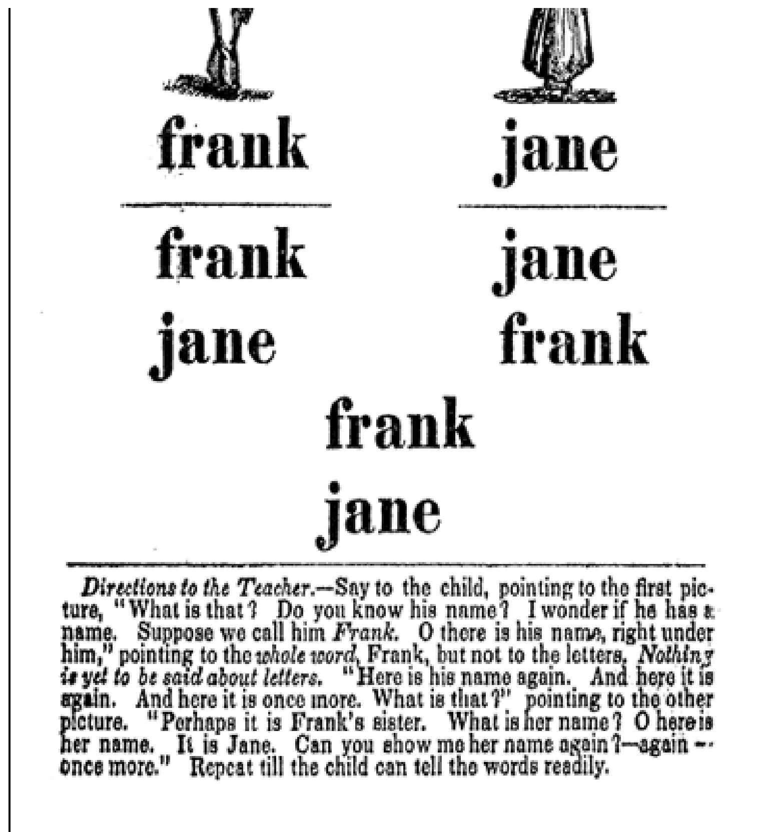

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Directions to the Teacher.—Say to the child, pointing to the first picture, "What is that? Do you know his name? I wonder if he has a name. Suppose we call him *Frank.* O there is his name, right under him," pointing to the *whole word*, Frank, but not to the letters. *Nothing is yet to be said about letters.* "Here is his name again. And here it is again. And here it is once more. What is that?" pointing to the other picture. "Perhaps it is Frank's sister. What is her name? O here is her name. It is Jane. Can you show me her name again?—again—once more." Repeat till the child can tell the words readily.

For many years science had very few decisive conclusions regarding this great debate in reading instruction. In recent decades, however, scientific findings have begun to accumulate, and the results indicate that both phonics and phonemic awareness instruction have a strong positive effect on reading achievement and that several of the key assumptions of the whole-word and whole-language movements are unwarranted.

It is still too early, however, to say that consensus has been achieved. There are still advocates of whole-word reading, including many education professors who inculcate a dislike for phonics and many teachers who have internalized at least part of the whole language philosophy, perhaps without realizing they were doing so. A conflict that has raged with such heat for almost two centuries is not likely to dissipate in less than a generation. Nevertheless, at least among those who pay attention to scientific findings, there does appear to be at least an *emerging consensus* that phonics methods of teaching decoding are superior to whole-word methods.

To the extent that there is an *emerging consensus* on phonics, that consensus has been summarized in the report of the **National Reading Panel**. The NRP was a panel of experts who completed what is called a *meta-analysis* of reading research. That is to say, they reviewed a bunch of studies that had already been done on various aspects of reading instruction. After examining these studies and omitting ones with methodological shortcomings, the NRP panel found that both phonemic awareness and phonics instruction had a significant positive effect on reading achievement.

Although the National Reading Panel represents an important step toward clarity and consensus, we should not overstate the degree of consensus that has actually been achieved. From the teacher or curriculum planner's point of view, the NRP is a starting point rather than a detailed road map. When you attempt to lay out an actual program of decoding instruction, as we have been doing over the past several years, the difficult questions begin to crowd upon you—and, as Shakespeare says, "they come not single spies, but in battalions." Here are just a few of the issues a teacher or curriculum planner needs to consider when developing a plan of instruction:

- *What kind of phonemic awareness instruction is best? Should phonemic awareness be taught in a purely*

oral fashion, without any use of letters? Or is phonemic awareness best taught in tandem with phonics?

- *What kind of phonics instruction is best? Is it better to begin with a word and draw attention to a particular sound within that word, or to begin with sounds and then combine these to make words?*
- *Is it helpful to draw students' attention to larger chunks of a word, like the "onset" and "rime," or is it better to focus their attention on the smallest chunks, the phonemes?*
- *Is it better to begin with the letters and connect these with sounds or to begin with sounds and connect these with letters?*
- *In what order should the letter-sound correspondences be taught?*
- *How many letter-sound correspondences need to be taught? Are there any that are so rare that they can be left untaught?*
- *When should reading instruction begin, and what should come first?*
- *How should a phonics program deal with the inconvenient fact that some sounds in English can be written several different ways?*
- *How should a program deal with the equally inconvenient fact that some graphemes (or spellings) can be sounded several different ways?*
- *What is the relationship between reading and writing? Should one be taught before the other or should both be taught together?*
- *Should letter names be taught at the outset, or is it more important to focus on the sounds the letters stand for?*

If you asked these questions to a hundred people involved in early reading instruction, all of whom agreed in preferring a phonics approach to whole-word approach, you would get a wide range of answers. That is to say, within the zone of emerging consensus defined by the NRP, there is a wide range of opinion about how, specifically, one ought to teach phonics and phonemic awareness.

In time, research will probably give us decisive answers to most if not all of these questions. At this point, however, the scientific evidence for many of these questions is much less full and clear than it is on the overarching question of phonics versus no-phonics. There are tantalizing findings that seem to point in a particular direction, but there is not yet a pattern of replicated studies pointing insistently to one approach as opposed to another. Ultimately one has to choose among several plausible and promising ideas, each of which falls within the zone of consensus sketched by the NRP, and each of which has some research to support it.

For the Skills Strand of the Core Knowledge reading program, we have chosen to follow what is sometimes called a *linguistic* approach to phonics. In Great Britain, where the method is currently getting a lot of attention, this approach is generally called *synthetic* phonics. Several field studies have shown that students who receive synthetic phonics instruction outperform students who receive the British national literacy curriculum.

Far and away the best book on this approach to reading instruction is ***Why Our Children Can't Read*** by Diane McGuinness. I recommend this book to all early education reading teachers and those teaching in schools interested in adopting the Core Knowledge reading program in the next few years. The book contains a great deal of useful information for teachers while also representing a significant contribution to research literature on linguistics and reading instruction. Here at Core Knowledge we require all staffers and freelancers working on the Skills Strand of the Core Knowledge reading program to read this book and pass a test on its content before they begin working.

McGuinness begins her book by discussing the ways in which various writing systems encode speech. She shows

that English writing is a *code for individual sounds*. Other writing systems may use symbols to stand for syllables or multi-sound chunks, but in English writing, symbols stand for *individual sounds*. *The fundamental unit of English writing is the sound, or phoneme*.

McGuinness then argues that reading should be taught in a way that is true to the nature of our writing system. The sounds should be primary and the letters should be taught, singly and in combinations, *as ways of writing down sounds*. Of course, you can't teach sounds and spellings effectively unless you know the sounds of English as well as the spellings used to represent those sounds. Most of us have only partial knowledge in this area, and, realizing this pitfall, McGuinness lays out English sounds and spellings in tables, allowing teachers and curriculum planners to see the network of correspondences and get a better sense of the structure and complexity of the English spelling code.

McGuinness shows that there are two kinds of problems with the English spelling code. First, there are sounds that can be spelled several different ways. These can be called "tricky" sounds. Here are three examples:

- The vowel sound /e/ as in *bed* is only a little bit tricky. It is most frequently spelled with an 'e', as in *bed*. However, it can also be spelled 'ea' as in *head*.
- The vowel sound /ie/ as in *time* is a bit trickier. It can be written 'i_e" as in *time*, 'ie' as in *tie*, 'i' as in *timing*, 'y' as in *my*, and 'igh' as in *sigh*.
- The vowel sound /ee/ as in *see* is even trickier. This sound can be spelled 'ee' as in *bee*, 'e' as in *be*, 'e_e' as in *Eve*, 'ea' as in *sea*, 'y' as in *tricky*, 'i' as in *Julia*, 'ey' as in *key*, and 'ie' as in *Dixie*.

McGuiness shows that these are not isolated examples. In fact, *the great majority of the sounds in English can be written with more than one spelling*. English vowel sounds in particular are slippery; because there are many ways to spell a given sound, it's not easy to spell correctly in English.

The second problem is that there are letters and letter combinations (graphemes) that can be sounded different ways. McGuinness calls these "code overlaps," but we prefer to call them "tricky spellings." Here are three examples:

- The spelling 'ea' is a little bit tricky. It can be pronounced /ee/ as in *sea* or /e/ as in *head*.
- The spelling 'e' is a little trickier. It can be pronounced /e/ as in *bed*, /ee/ as in be, or /u/ (schwa) as in *relevant*.
- The spelling 'a' is even trickier. It can be pronounced /a/ as in *cat*, /ae/ as in *table*, /o/ as in *all*, and /u/ (schwa) as in *above*.

Again, these are not isolated examples. McGuinness identifies two dozen spellings that occur often and are highly ambiguous. These ambiguous spellings cause difficulties when students are reading because children are not sure how to pronounce the spelling.

All of this is good to know, but it can be a little intimidating. When brought face to face with the complexity of the code, one may be tempted to throw up the hands in despair and conclude that English spelling is too complicated to be taught, and I believe some people have done just this. Indeed, one of the subsidiary forces inspiring the whole language movement may have been a vague sense that the system is too complicated to teach, suggesting that it is better just to let the kids figure it out through exposure. To her credit, McGuinness does not take this approach. She refuses to leave her readers discouraged by the complexity of the code, and she offers specific, powerful suggestions for managing the complexity of the code when introducing children to English reading and writing (particularly in chapters 9 and 10).

writing (particularly in chapters [illegible] and 10).

As noted earlier, McGuinness advises educators to *begin with the sounds*. At the beginning of a linguistic phonics program of the sort McGuinness advocates, the teacher might start by announcing that the sound of the day is /p/ as in *pop* and *ping-pong*. Then the children practice saying the sound and listening for it during various oral language games and activities. Once the children are familiar with the sound and have had a chance to hear it and say it, the teacher introduces the most common, or least ambiguous, spelling for the sound. For the sound /p/, the first spelling taught is 'p' as in *pig*. The teacher tells the students that she is going to show them how to make a *picture of the sound /p/.* She draws a 'p' on the board and explains the strokes involved. Students then practice making the "sound picture" 'p' themselves.

If /p/ spelled 'p' is taught Monday, /a/ spelled 'a' might be taught Tuesday, /t/ spelled 't' on Wednesday, and /e/ spelled 'e' on Thursday. After these four days of instruction, the class will be able to read and write simple words like *at*, *pat*, *pet*, *pep*, and *tap*. As more sounds and spellings are taught, the world of possibilities expands. Children can read more words, then simple phrases, then sentences, then simple stories.

McGuinness argues, persuasively, that the words children are asked to read and write in these early stages should use letter-sound correspondences they have learned and should not include spelling alternatives the children have not yet been taught. Thus, children in the early weeks would be asked to read and write words like *bed* and *nut.* They would not be asked to read and write words with spelling alternatives like *head* and *touch*—at least not right away. Only after some weeks of instruction—when the children have learned the most common spelling for most of the sounds in English and acquired some facility in blending sounds into words (reading) and segmenting words into sounds (spelling)—will they be asked to tackle the spelling alternatives. These too will be systematically introduced by the teacher. For example, the teacher will stand up and tell the children: "You already know one way to write the /e/ sound, as in *bed*. Today we are going to learn another way to write this sound, as in *head*."

The great advantage of this system is that it introduces the complexity of the English spelling system *gradually*, instead of dropping it on the students all at once. The students first work with a small set of spellings that McGuinness calls the Basic Code before they have to wrestle with the larger set of alternative spellings she calls the Advanced Code. In the world of Basic Code, the sound /e/ is always spelled 'e' and the sound /ee/ is always spelled 'ee'. Only later, when students are firmly grounded, are they made to confront the unpleasant fact that most sounds in English can actually be written several different ways. The genius of the Basic Code is that it allows beginners to work with a simplified system, and the simplification is achieved without any need for a modified alphabet of the sort used in the old **i.t.a**. (Initial Teaching Alphabet) system.

Why Our Children Can't Read is a book that can change the way you think about early reading instruction. Even if you have not converted to the linguistic phonics approach, you will emerge from your study of this book with a much-improved understanding of the English writing system and the letter-sound correspondences.

This is not an easy book to read. It's not that McGuinness writes poorly. Rather, it takes some time to understand the ramifications of her argument, and some parts need to be reread if they are to be fully understood. The shift McGuinness makes by beginning with *sounds* instead of *letters* seems minor, even trivial at first, but it has some striking ramifications. I had to read the whole book twice before I began to understand some of those ramifications. I have now read some parts of it four or five times.

Some people will probably be put off by the tone and rhetorical strategies McGuinness uses. She is a pugnacious individual with a strong argumentative streak. (One of her earlier books was titled *Dominance, Aggression, and War*.) She has a tendency to make bold claims for her method while denouncing all rival approaches (including

other phonics approaches). Some readers will no doubt be put off by what might be described as her "my way or the highway" attitude. I was initially put off by this myself, but I have come to think that *her way* has much to recommend it.

Additionally, McGuinness has alienated some in the reading world by staking out strongly worded and controversial positions on a handful of specific issues. Two issues where she has stirred controversy are letter names and dyslexia.

McGuinness points out that letter names are confusing to some children and can give them inaccurate ideas about reading. Some children think that letters "say their names." In fact only five of the 26 letters in English *ever* "say their name" (a, e, i, o, and u), and in each case there is a more likely pronunciation for those letters: 'a' is more often pronounced /a/ as in *cat*, 'e' is more often pronounced /e/ as in *bet*, 'i' is more often pronounced /i/as in *hit*, etc. Since letter names can confuse beginning readers and interfere with students learning the connections between sounds and symbols, McGuinness recommends that the teaching of letter names be rigorously excluded from reading instruction in grades K and 1. Instead of teaching letter names, she urges teachers to focus on the *sounds*.

This may be a desirable goal, but it will not be easy to achieve in practice. The letter names are everywhere. They are taught in homes and preschool. Sesame Street is more or less organized around letter names, and many households are full of talking baby toys that recite the letter names. In my family, we can't pass a holiday season without opening two or three toys that sing the alphabet song.

The rationale for avoiding letter names seems to me to be most persuasive in the earliest phases of instruction, where there is indeed potential for confusion. Once students have learned to connect sounds with symbols and have developed good reading strategies, there is less potential for confusion and, perhaps, less reason for excluding letter names. One can even argue that the letter names have a place in the sort of linguistic phonics McGuinness recommends. It is also difficult to talk about the alternative spellings that make up the Advanced Code without using the letter names. When you discuss 'ea' as in *bead* as an alternative spelling for the /ee/ sound, it is useful to be able to name the two letters that make up that spelling. This may be one reason why **Jolly Phonics**, a British program whose approach largely coincides with what McGuinness advocates, asks teachers to avoid the letter names for the first several weeks, when the potential for confusion is greatest, but introduces them and uses them unapologetically thereafter. We will be adopting a similar strategy in our own program.

Also, there are those who oppose McGuinness for her views on dyslexia. She has questioned whether there is any biological basis for dyslexia, pointing out that countries with simpler spelling systems than English (like Germany) have much lower rates of reading failure. If dyslexia is not an issue in other countries and the human brain is largely the same across national boundaries, how can biology be the source of the problem? This argument is not one I am qualified to resolve. It may be that McGuinness has overstated her claims on this point. Many people certainly think so. However, it seems likely that there is at least a kernel of truth in her argument. It seems very probable that many children in the U.S. who have been diagnosed with "dyslexia" are not actually suffering from some intractable biological condition; rather, they have simply failed to read because the English spelling code is very complicated and because this code is not always taught effectively in schools. (Indeed, in some whole language classrooms, it is considered bad practice to teach the code at all.) These are both social or environmental factors rather than biological factors. On a bright note, McGuinness's statements regarding dyslexia suggest that the decoding problem in our country may well be much more amenable to solution than we think—if we treat it as a cultural problem rather than a biological or brain-based disorder.

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Even the best kind of phonics teaching will not solve America's reading problems by itself. Scholars who work on the simple view of reading remind us that language comprehension is also a key factor. And E. D. Hirsch reminds us that reading comprehension requires cultural knowledge in addition to decoding skills. At the same time, we are not likely to solve our nation's reading programs if phonics is shunned, poorly taught, or half understood. McGuinness's book is one of the best books available on the decoding aspects of reading instruction. Anyone who takes the time to study it will learn a great deal about the English language, sounds and spellings, and early reading instruction. It is also the best book you can buy to get a sense of the instructional outlook we have adopted for the Skills Strand of our reading program.