Chapter 5

What We Know About How to Teach Phonics

Patricia M. Cunningham and James W. Cunningham

Phonics is once again a hot topic, and teachers, parents, school board members, and legislators are all talking about it. Everyone seems to agree that we need to teach phonics, and almost everyone has an opinion about how it should (and should not) be taught. The question regarding how to teach phonics is not a new issue, however. In 1934, Paul McKee, one of the most prominent reading experts of his day, wrote the following:

> The question of instruction in phonics has aroused a lot of controversy. Some educators have held to the proposition that phonetic training is not only futile and wasteful but also harmful to the best interests of a reading program. Others believe that since the child must have some means of attacking strange words, instruction in phonics is imperative. There have been disputes also relative to the amount of phonics to be taught, the time when the teaching should take place, and the methods to be used. In fact, the writer knows of no problem around which more disputes have centered. (p. 191)

When McKee wrote these words, there was little knowledge on which to base decisions regarding how phonics should be taught. In the decades since, we have accumulated vast amounts of knowledge about how the brain works, how children learn, and how words are structured. In this chapter, we will first summarize some of the most important research findings about good teaching, regardless of what is being taught. Next, we will summarize the major findings specific to the teaching of phonics and how children learn to decode unfamiliar words. We will then suggest research-based activities for teaching phonics.

What We Know About How to Teach

There are some principles that apply to everything that is taught. As we consider how phonics should be taught, we must not overlook that all

instruction must help learners develop cognitive clarity and become engaged with what they are learning. All instruction also must be as multifaceted and multilevel as possible.

Children Need Cognitive Clarity About What They Are Learning

Cognitive clarity is knowing what you are trying to do and understanding where you are trying to go and why you are going there. When you have cognitive clarity about a task, you are more likely to persist in your efforts because you anticipate the goals you will eventually reach. You self-monitor your actions by thinking about whether they will get you where you want to go. You are able to cooperate with the instruction you receive because you know what your teacher is trying to help you learn.

Imagine that you are making a new recipe—Tangy Thai Trout. You are a good cook, but Tangy Thai Trout requires ingredients and procedures that you have never used before. What would be your level of cognitive clarity? That would probably depend on your prior experience and level of support. If you had never eaten or seen anyone prepare Thai food, your cognitive clarity would probably be fairly low. What if you had never seen anyone cooking it, but you had eaten it in a wonderful Thai restaurant and then gotten the recipe from a friend of the chef? Anticipating how good it could taste and having an idea of the finished product would definitely increase your level of cognitive clarity. Now imagine that you are watching a television show on cooking and, serendipitously, there is a chef preparing Tangy Thai Trout. If you quickly put a tape in your VCR and capture the step-by-step demonstration, you will probably create a dish your friends and relatives will rave about.

Cognitive clarity is often taken for granted by adults, who have a clear sense of the importance of what they are trying to teach. Unfortunately, many children—particularly those who come from less academic environments—have little idea what they are trying to do or why anyone would want to do it. Experiencing the end product and watching people successfully modeling the processes necessary to achieve that end product gradually develop learners' cognitive clarity.

John Downing coined the terms *cognitive clarity* and *cognitive confusion* in his theoretical work on reading, but the terms have broad application to all learning. Downing (1979) defined cognitive clarity as "a technical label for the psychological components that lie behind what the layman might refer to as 'clear understanding,' 'clear thinking,' [or] 'grasping the problem'" (p. 5). As such, cognitive clarity would be considered a component of metacognition, and it would be supported by the research that has found that clear understanding of a task and its goals aids learning.

Children Need to Become Engaged With What They Are Learning

Engagement is probably the most common term used to talk about the relationship between motivation and learning. Engaged learners work in a motivated way—that is, they employ whatever skills and strategies they have with effort, persistence, and an expectation of success. Recent theory and research have changed the predominant view of motivation from being a drive or the result of reinforcement to being learners' beliefs about themselves (Guthrie & Wigfield, 1997). We now know that motivation has at least three major components—self-confidence, beliefs about why you succeed or fail, and seeing the activity to be learned as pleasurable.

One of the most important aspects of motivation is self-confidence (also called self-efficacy). According to Schunk and Zimmerman (1997), "Self-efficacy refers to beliefs a person has about his or her capabilities to learn or perform behaviors at designated levels" (p. 34). The research on self-confidence and learning suggests that students who have doubts about their ability to learn something are less likely to try to learn it and more likely—when they do try to learn it—to give up when they encounter difficulty. Students who have confidence in their ability to learn something put forth more effort to learn it and tend to persist even in the face of challenges.

The feeling of being capable of learning is not a constant attitude. All of us have self-confidence about learning in some areas while lacking it in others. For example, a person may have high self-confidence when learning to play a new musical instrument, but lack confidence that he or she can learn to play a new sport. Persons with self-confidence in math do not always have self-confidence in literacy. Learners must be helped to develop or maintain self-confidence in each subject being taught.

In addition to self-confidence, motivation is affected by learners' beliefs about why they have difficulty. If they believe that they are having trouble because they are not good at learning, their difficulty will

undermine their self-confidence. However, "[n]egative self-evaluations will not diminish self-efficacy and motivation if students believe they are capable of succeeding but that their present approach is ineffective" (Schunk & Zimmerman, 1997, p. 40). Students must learn to self-monitor their success and learn that it is not their ability but the approach they are taking that is the cause of their success or failure.

Young children especially are dependent on their teachers and fellow students to help them acquire the insight that our strategies are different from ourselves. Only by watching teachers and peers actively applying strategies, self-monitoring success, and—if necessary—changing strategies do young children learn that success does not result from some fixed ability, but from knowledgeable and flexible efforts. Unless students learn to attribute their success or failure to their procedures rather than their unchanging competence, they will not be willing to learn different procedures or to give those procedures a chance to work.

As important as self-confidence is in learning, there are nevertheless things we have confidence we can learn that we still have no desire to learn. Children who dislike something may avoid it or give only partial attention to learning it, although they have the self-confidence to learn it. At first, we expect to have to insist that students pay attention to our lessons and attempt assigned tasks. Before long, however, if students still only pay attention during lessons or complete tasks when we insist or reward them for doing so, we know their chances of ever being good at that activity are low. Ultimately, being successful at learning anything requires that we become interested in the activity to be learned and see doing it as enjoyable.

Engagement plays an important role in learning any subject. Learners who develop self-confidence, try new strategies when they experience failure or difficulty, and come to see the activity as pleasurable are motivated learners.

Children Need Instruction That Is Multifaceted and Multilevel

Fostering cognitive clarity and promoting engagement are universal teaching principles that apply to all subjects and learners of all ages and types. A third general instructional principle acknowledges the differences in how children learn. Gardner (1993) introduced the idea of multiple intelligences and reminded us that children do not all learn in the same way. They come with their own personalities, learning strengths, and learning weaknesses. Regardless of what you call them—multiple intelligences, learning styles, personalities—or exactly how many types exist, children have them. The best instruction in any subject seeks multiple ways to accomplish the same goals so that regardless of how a child prefers to learn or learns best, an opportunity to learn in that way is available.

In addition to having different learning personalities, children vary with regard to their entry level and how many encounters it takes them to "own" a skill or concept. Instruction that takes a single skill or concept and teaches it to mastery before going on to the next concept is only effective if it is being given to one child at a time. As soon as you have two or more children, you will have different entering knowledge levels and different numbers of encounters needed for learning.

A multilevel activity is a single activity that is so rich, students at different levels may learn through the same activity. Unlike single-level activities, multilevel activities are not frustrating for those with much to learn, boring for those with little to learn, or both when aimed at those in the middle. When teachers provide daily multilevel learning opportunities, more children achieve the mastery desired over time (Cunningham, Hall, & Defee, 1998).

What We Know About How to Teach Phonics

Keeping in mind the overall learning principles explored in the previous section, we will now look specifically at how to teach phonics. There have been few instructional studies comparing different types of phonics instruction, and those that have been done have often compared systematic phonics instruction with "hit-or-miss" phonics instruction. From these studies, we can conclude that any kind of well-organized and efficient phonics instruction is generally better than little or no phonics instruction that leaves learning phonics to chance. Stahl, Duffy-Hester, and Stahl (1998) reviewed the research on phonics instruction and concluded that there are several types of good phonics instruction and that there is no research base to support the superiority of any one particular type. The National Reading Panel (2000a, 2000b) reviewed the experimental research on teaching phonics and determined that explicit and systematic phonics is superior to nonsystematic or no phonics, but that there is no significant difference in effectiveness among the kinds of systematic phonics instruction. The Panel also found no significant

difference in effectiveness among tutoring, small-group instruction, or whole-class phonics instruction.

In trying to determine what type of phonics instruction is most effective, we must look at other research findings about how children learn phonics. We can then combine these findings with the three overall learning principles and make some reasonable and research-based suggestions for how best to teach phonics.

Children Need Phonemic Awareness But That's Not All They Need

One of the understandings that many children gain from early reading and writing encounters is the realization that spoken words are made up of sounds. These sounds (phonemes) are not separate and distinct; in fact, their existence is quite abstract. Phonemic awareness has many levels, and it includes the ability to decide whether spoken words rhyme, to know what spoken word you would have if you removed a sound, and to manipulate phonemes to form different spoken words. Phonemic awareness seems to be developed gradually for most children through much exposure to nursery rhymes and books that promote word play such as *Green Eggs and Ham* by Dr. Seuss, *Inside, Outside, Upside Down* by Stan and Jan Berenstain, *There's a Wocket in My Pocket* by Dr. Seuss, and *The Berenstains' B Book* by Stan and Jan Berenstain.

Phonemic awareness is one of the best predictors of success in learning to read (Bryant, Bradley, Maclean, & Crossland, 1989; International Reading Association, 1998). However, this has led some people to conclude that phonemic awareness is all we need to worry about in preparing children to read. Phonemic awareness training programs have been developed and mandated for every child, every day for 30 to 40 minutes. The classroom reality is that there are only so many minutes in a day, and if one activity gets 30 to 40 minutes, other important activities get less time. In addition to phonemic awareness, children who are going to learn to read successfully must develop print-tracking skills and begin to learn some letter names and sounds. They need to develop cognitive clarity about what reading and writing are for, which they can only learn when they spend some of their time each day in the presence of reading and writing.

Another problem with this overreaction to the phonemic awareness findings is that some children enter school with sufficient phonemic awareness to begin to learn to read, whereas others will develop it solely from engaging in emergent literacy activities such as shared reading of books that play with sounds, writing with invented spelling, and learning onsets using a variety of activities (key actions, students' names, and key foods or beverages). What are these children going to gain from 30 to 40 minutes of daily phonemic awareness training (90 to 120 hours in a school year)? Such single-level instruction can only bore and even confuse those who already have or would learn phonemic awareness without it.

Children Need to Learn Sequential Decoding But Not Necessarily Through Synthetic Phonics Instruction

Sequential decoding is the ability to look at all the letters in an unknown word and associate sounds with some of the letters. Sequential decoding is not necessarily accomplished by saying a sound for each letter and then blending those individual sounds together. Beginning readers often use what is called the "consonant plane" (Berent & Perfetti, 1995) to sequentially decode words in context. Imagine a young reader who knows as sight words *he, went, to,* and *and* looking at a picture of a boy fast asleep in bed with this sentence underneath: *He went to bed and fell fast asleep.* By looking at all the letters in the unknown words *bed, fell, fast,* and *asleep,* a beginning reader who knows the consonant sounds, is using the context and picture clues, and knows that reading has to make sense and sound like language could use the consonant plane to decode the unknown words in that sentence.

Synthetic phonics approaches begin by teaching children individual sounds for letters and then having them blend those letters together to sound out words. In synthetic phonics programs, the first text children read is constructed to have them practice their decoding and is restricted to sounds they can blend to make words, plus a few essential sight words. Here are the first two pages of an early story in a synthetic phonics text (Cassidy, Roettger, & Wixson, 1987, pp. 15–16):

> Dad ran. Ann ran. Dad and Ann ran.
>
> Dad ran. Nan ran. Dad and Nan ran.

To become fluent readers, children must learn the common sounds for vowel patterns. But, in the beginning, readers can learn to do sequential decoding using meaning and the consonant plane. As they decode more words in this way, children learn more about words and