BEGINNING TO READ: Thinking and Learning about Print

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A Summary

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Learning the Visual Identities of Letters

...As discussed earlier, children's facility in identifying and naming letters has been shown repeatedly to be a powerful predictor of their reading achievement. First, it has been shown that learning about letters frequently turns easily into interest in their sounds and in the spellings of words. Second, familiarity with letters is strongly related to the ability to remember the forms of written words and with the tendency to treat print as an ordered sequence of letters rather than a holistic pattern. Finally, not being able to recognize or name letters is coupled with extreme difficulty in learning letter sounds and word recognition.

It is easy to conclude that learning to recognize and discriminate between the letters of the alphabet is an important first step toward reading. What is it about the visual forms of letters that makes them hard to master?

The Difficulty of Learning to Recognize Letters

The letters of our alphabet are graphically sparse and confusable, looking as much like each other as anything else a child will have learned to date. They are abstract — how much easier it would be if an *a* in some way resembled an ant, a *b* a ball, and so on. In addition, the letters defy the child's learned indifference to orientation: A cup is a cup turned any whichway, but *d, b, p,* and *q* are distinctly different letters. They must be learned in such a way that they will be recognizable across a variety of hands and typefaces. And, in fact, there is not one set of twenty-six basic letters to be learned, but four, including both upper case and lower case in both manuscript and cursive. Learning the visual identities of letters is not a snap even for children who are interested in doing so. It takes time and practice and requires careful visual attention.

Research indicates that the shapes of letters are not remembered as holistic patterns. Instead, the visual system analyzes each letter into its elementary features — its horizontal, vertical, and diagonal line segments and its arcs — and then represents the letter's overall shape in terms of the relative positions, orientations, lengths, and sizes of these elements. Thus we are indifferent to changes in the size or distortions in letters — what is important is the *relative* size, obliqueness, or extent of their *parts.*

Over time and with increasing familiarity with print, children become sensitive to the types of spatial relationships that distinguish one character from another. Given a set of novel, letterlike characters to inspect, children become progressively more attuned to gaps or openings between the features (as in the difference between *C* and *O, F* and *P,* and *A* and *H*) or to changes in rotation or orientation (as in the differences between *b, d, p,* and *q*). Meanwhile, children also become progressively indifferent to the kinds of visual differences that do not distinguish one character from another.

In the past, poor readers' errors with letter orientation were often interpreted as signs of neurological dysfunction or immaturity. Current research suggests instead that such errors reflect nothing more than insufficient knowledge of letter shapes. Letter reversals seem to be merely a symptom of low print knowledge, rather than a cause of reading problems. Moreover, training children to attend to the relevant contrasts between letters has been shown to hasten their ability to recognize and distinguish between them.

Teaching Children to Recognize Letters

Research indicates that the way in which children are most often introduced to letters at home is through the alphabet song and, further, that these children typically learn to recite the names of the letters long before they can recognize them. For teachers planning letter recognition instruction, there are a couple of useful points lurking in these observations.

First, letter learning for these children typically does not proceed by showing them the letters and then teaching them the names. That's backwards. Most children, instead, are

taught the letters only after they know their names. By thoroughly learning the names first, children have a peg to which their perceptions can be attached. More than that, they have a set of conceptual anchors with which to sort out relevant and irrelevant differences in the letters' appearances. Second, it is significant that the initial ability to recite the alphabet is so often achieved through the alphabet song: Songs, with their rhyme, rhythm, and tune, are far easier to learn that unintoned lists. Third, these children typically learn the names of letters long before being introduced to their sounds. When it is time to learn the sounds of the letters, their solid, overlearned familiarity with the letter names probably protects them from confusing the two.

For children who enter school with little knowledge about letters, potential confusions between their names and sounds are far more likely. And, although the sound of a letter is often similar to its name, there are important functional differences between the sound and name of a letter. In the interest of preventing any such confusion, a few programs avoid the use of letter names altogether, relying instead on the sounds of the letters for purposes of reference.

Although the motivation for this practice is well founded, it must be implemented with special care. Because learning about the sounds associated with the letters is itself a difficult task, the pace of learning the identities of letters must be relatively slow in such a program. To support adequate overall progress, the curriculum must be carefully designed to maximize reading and writing activities with the letters taught thus far. Without such care, it may be easier to make sure that children firmly recognize letters before formal instruction on spelling-sound relations or word recognition.