Does Intensive Decoding Instruction Contribute to Reading Comprehension?

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In the recent Reading First Impact Final Report, children participating in Reading First classrooms did better than comparisons on a test of decoding given in grade one. Reading First children did not, however, do better on tests of reading comprehension in grades one, two, and three, despite considerable extra instructional time (Gamse, Jacob, Horst, Boulay, and Unlu, 2008).

Not mentioned in the Final Report is that we have seen this pattern before: Children following an intensive, decoding-based curriculum do better on tests of decoding (pronouncing words out-loud) when compared to regular students but do not better on measures of reading comprehension.

Evidence from The National Reading Panel

The pattern of success at decoding and failure at comprehension as a result of intensive phonics instruction was present in the foundation document for Reading First, the report of the National Reading Panel (National Institute of Child Health and Human Development, 2000).

The reading panel claimed, on the basis of their review of the research, that intensive systematic phonics was superior to less intensive approaches, but as Garan (2001) has noted, this superiority was present only on tests of decoding, specifically tests on which children pronounce lists of words presented out of context. Children trained with intensive phonics did not do significantly better on tests in which they had to understand what they read: For tests of reading comprehension given after grade 1, the impact of intensive systematic phonics was small and statistically insignificant. [For tests given in grades 2 through 6, the effect size in favor of intensive phonics was substantial: .49 for "decoding regular words" (17 studies) .52 for "decoding irregular words" (13 studies), but it was only .12 for "comprehending texts" (11 studies).]

Evidence from Direct Instruction

The same pattern is present in research on "Direct Instruction" (DI). Direct Instruction's approach to teaching reading is based on training children in

phonemic awareness, followed by drills on phonics. DI maintains that students need to know how to sound out words before they can actually read with understanding.

On "decoding" tests (e.g. the WRAT, Wide Range Achievement Test), DI children do quite well, but their scores are clearly much lower on tests of reading comprehension (e.g. the MAT, Metropolitan Achievement Test, which also includes vocabulary).

This is true when DI children are tested in grade three (Becker et. al. 1981) and in grades four, five and six (summarized in Becker and Gersten, 1982, who note that while Direct Instruction children scored at national norms on decoding skills, they only scored between the 25th and 35th percentiles in reading comprehension).

Other follow-up studies show that when DI children are tested in the upper grades on standardized tests that include reading comprehension, the results are extremely modest (grades three, four and five; Meyer, Gersten and Gutkin 1984; grade nine (Meyer, 1984; Gersten, Darch and Gleason, 1988; Gersten, Keating, and Becker,. 1988; summarized in Adams and Engelmann, 1996, p. 94). The average score in grade nine for DI students is only at about the 34th percentile.

The Clackmannanshire study

The Clackmannanshire study, done in Scotland, has been cited frequently as a victory for systematic phonics instruction. In first grade (primary 1), two different ways of teaching phonics were compared, and the lessons lasted for 16 weeks. A total of 177 children who received the winning approach, synthetic ("first and fast") phonics, were followed up to grade 7 (Johnson and Watson, 2005). The comparison group, the one that did not get synthetic phonics but had a different method of learning phonics, was not followed up.

In grade 7, the children were found to be unusually good at pronouncing lists of words presented in isolation, 3.6 years ahead of norms. But they weren't nearly as impressive on tests of reading comprehension, scoring only three months above the expected level.

The children's superior ability to read words out of context did not translate

into better reading comprehension ability. In fact, the children were farther above norms in reading comprehension in grade 2 than in grade 7.

Is Decoding Proficiency Part of Learning to Read?

The results of these studies suggest that a high level of proficiency in decoding is not a preliminary step in learning to read. One could argue, however, that intensive decoding practice is only the first step, necessary but not sufficient, and it needs to be followed by a great deal of practice in applying the principles learned.

Heavy Skills Instruction not Necessary

If instruction in decoding is necessary as a first step, the results of other studies indicate that heavy, systematic phonics instruction of the kind supplied by Reading First is not necessary. These studies show that children who have been given the opportunity to do a great deal of interesting, comprehensible reading and have less decoding instruction perform as well as or better than children in decoding-emphasis classes on decoding tests, and typically score higher on tests that test what really counts in reading: comprehension (Morrow, O'Conner and Smith, 1990, Eldridge, 1991; Klesius, Griffith, and Zielonka, 1991). There are also many attested cases of children who learned to read on their own with little or no explicit decoding instruction and who appear to be able to decode quite well (e.g. Goodman and Goodman, 1982, McQuillan, 1998).

In summary: Those who receive only intensive instruction in decoding do not do well on tests of reading comprehension, but those who learn to read by reading, by understanding what is on page, do well on tests of both decoding and reading comprehension.

Result, not Cause

This conclusion is consistent with the views of Frank Smith (2004) and Kenneth Goodman (see Flurkey and Xu, 2003) who have maintained that our ability to decode complex words is the result of reading, not the cause.

This position does not exclude the teaching of "basic" phonics (Krashen, 2004; Garan, 2004). A small amount of consciously learned knowledge of

the rules of phonics can help in the beginning stages to make texts comprehensible, but there are severe limits on how much phonics can be learned and applied because of the complexity of many of the rules (Smith, 2004).

The Reading First Final Report thus confirms the common-sense view that the path to reading proficiency is not through worksheets but through books and stories.

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