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Is Learning to Read Without Formal Instruction Common?

by

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Some researchers have claimed that learning to read is an "unnatural act" that requires extensive formal, systematic intervention (Perfetti, 1995; Stanovich, 1995; Share, 1995). There are several reports in the literature, however, of children who appear to become readers without any structured, systematic program of instruction (Brenna, 1995; Forester, 1977; Goodman & Goodman, 1982; Henderson, Jackson, & Mukamal, 1993; Jackson & Lu, 1992; Jackson, 1988; King & Friesen, 1972; Torrey, 1969). While such reports of "natural" and precocious readers are suggestive, there have been no attempts to provide an estimate of just how common learning to read outside of school is using a larger population of children.

Two published estimates are available in Durkin (1966), who reports that in her first study, slightly less than one percent in her sample of over 5,000 entering first graders in the Oakland, California school system could read at least 18 of the 37 pre-primer and primer words on her test. In her second survey of 4,465 first graders in New York City, the percentage of early readers was slightly higher, about three and a half percent. From Durkin's evidence we may conclude that few children learn to read outside of school.

The purpose of this short report is to determine whether Durkin's estimate is valid for a larger sample of children. Information contained in the National Household Educational Survey (NHES) conducted by the U.S. Department of Education (National Center for Educational Statistics (NCES), 1993) provides us with data to answer this question. The survey gathered data on a variety of home literacy practices from over six thousand parents of children ages three to nine living in the United States. A more accurate estimate of early reading can help both teachers and teacher educators understand the prevalence of reading acquisition in non-school settings and the types of print experiences children bring with them to the classroom.

Method

The NHES was based on random sample subject selection representative of the entire U.S. population, and thus its results allow us to obtain an estimate of early reading that can be generalized to the country as a whole. Using the raw data files provided in electronic form by the National Center for Educational Statistics (U.S. Department of Education, 1993), data were analyzed from those variables which asked parents at what age their child began to read, whether the child was currently attending school (kindergarten or above), and what practices commonly associated with early reading the parents engaged in.

Results and Discussion

The results are presented in Tables 1, 2, and 3

Parents' estimates of the age at which their child began to read are reported in Table 1. If we assume that the earliest likely exposure to direct instruction is kindergarten (roughly, age 5), then nearly twelve percent of all children in the United States learn how to read at some level without formal teaching in school. This seems to be a conservative cut-off point, since not all kindergarten and pre-school programs teach children to read. Another way to approach the problem is to examine only those children who are not enrolled in any school or early education program. Table 2 gives the number of children between the ages of three and seven in this category, and whether or not they are able to read independently. The percentage of uninstructed readers is lower (6.7%) than the parents' retrospective reports found in Table 1.

Table 1

Age That My Child Began to Read (Parents' Report) (n = 4560)

Age	Number	Percent
1	4	.1
2	18	.5
3	124	3.0
4	376	8.2
5	1358	29.4
6	2156	47.6
7	489	10.5
8	35	.7

Table 2

Current Age and Ability to Read Story Books Independently for Those Who Are Not Currently Enrolled in Any Formal Education Program (Parents' Report) (n = 2266)

	Age						
Can read independently?	3	4	5	6	7	Total	
Yes	46	52	25	15	15	153	(6.7%)
No	1188	865	206	6	1	2113	(93.3%)

Table 3

Literacy Practices in Homes Where Children Are Not Enrolled in Education Programs by Ability to Read Independently

	Readers	Nonreaders
Has more than 50 books	*90%	83%
Is read to more than 3 times a week	**88%	76%
Has visited the library in the last month	***42%	34%

* Chi-square = 4.06 (Yates Corrected), df = 1, $p < .05$ (n = 2419)
** Chi-square = 5.19 (Yates Corrected), df = 1, $p < .05$ (n = 1178)
*** Chi-square = 2.98 (Yates Corrected), df = 1, $p = .08$ (n = 2392)

The lower figure may be due to one of several factors. First, reports of a child's current activity may be more accurate than memory of past events. Second, the question parents were asked was much more specific and restrictive in Table 2 ("Can your child read story books independently?") than in Table 1 ("At what age did your child begin to read?"). In the former case, parents were given a level of performance that the child must meet to answer in the affirmative; in the latter, the parents were left to define what constituted being able to read. Third, it may be that those who do not participate in any formal schooling also differ in other respects from the general population in ways which affect early literacy.

An examination of the mean income and level of parents' education reveals this is the case: parents of children who are not enrolled in early education programs tend to have lower mean incomes and less education than those whose children are attending school (income (on 1 to 9 scale): enrolled = 6.93 (3.05), unenrolled = 6.23 (2.86); parents education (on a 1 to 5 scale): enrolled = 3.03 (1.16), unenrolled = 2.73 (1.07)). Although the difference is in both cases statistically significant (income: $t = 10.45$, df = 4115.43 (unequal variances), $p < .001$; parents education: $t = 11.49$, df = 10,886, $p < .001$), it is not large. The effect size for income is .33; for education .22, both very modest.

Among those children who are not enrolled in school, there are also small differences in literacy practices in those homes where children are reading and those who are not, as reported in Table 3. Children who are reported as being able to read story books independently have slightly more books than those who do not, are more likely to have visited the library in the past month, and have been read to more often by their parents. These differences are all statistically significant or strongly trend toward significance, although the effect sizes are very small (effect sizes: number of books = .04, library visits = .07, read to = .04).

Discussion & Implications

The percentage of early readers from retrospective and current parental reports (Tables 1 and 2, respectively) are both much higher than Durkin's one to three and a half percent. It is tempting simply to dismiss the reports of parents as unreliable due to the "social desirability" of responding that their child can read and rely on the more "objective" tests used by Durkin. We should also consider, however, that Durkin's measurements were very limited (37 words in isolation on her test) and used in a setting in which students may have been very apprehensive (children were tested during the first days of first grade). More importantly, Durkin's subjects in Oakland came largely from a lower-middle and low income district, where the average student was likely to have less access to print (Morrow, 1983). Durkin states that her New York City subjects were more "heterogeneous" in their socio-economic status, although no detailed breakdown was given in her report. The NHES data, on the other hand, represent all income and educational classes in the proportion they are found in the U.S. population.

It seems likely, then, that Durkin's one percent estimate is probably too low, and that we should (cautiously) treat the parents' reports in the NHES survey as truer estimates of the number of children who learn to read before formal instruction in school. It should be pointed out that children learning to read outside of school often do receive help from parents or siblings in some aspects of early reading, such as instruction in letter names and shapes and, perhaps more importantly, being read to. Studies of early readers indicate, however, that this help does not typically extend to phonemic awareness training or other systematic phonics instruction that is thought by some to be necessary for children to learn to read (Durkin, 1966; Jackson, 1988).

These findings have at least three theoretical and practical implications for reading teachers and teacher educators. First, reading acquisition should not be seen as an exclusively school event requiring explicit, meta-linguistic instruction. Children can and do learn to read in the home environment, and clearly do so in many cases where systematic intervention is unlikely. Second, early readers are not as rare as was once thought, and hence the position in favor of the "naturalness" of reading acquisition (Goodman & Goodman, 1979) in print-rich environments is strengthened. Third, children are more likely to acquire literacy when they are given the supportive conditions which help them make sense of print at home, such as being read to by a more capable reader and having access to reading materials. Of course, these conditions can be replicated in school by teachers. The study's results suggest that reading to children and providing them with ample access to books should remain at the core of any reading program.

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