

“Rethinking the Link between Maternal Education, Reading with Children, and

Verbal Achievement”

By

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September 21, 2007

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Volumes of research have documented the importance of reading skills for children's academic success. As such, parents' time spent reading to children is widely considered one of the most important indicators of parents' quality time with children. Despite the importance of reading for children's cognitive development and academic well-being, however, there is substantial variation in how often parents read to their children. In other words, some parents read more often to their children than others. One of the strongest and most consistent predictors of parents' time spent reading with children is parental education, particularly maternal education. Highly educated parents tend to read to their children more frequently than parents with less education. This study takes a more nuanced look at the link between maternal education, children's time spent reading with parents, and children's verbal achievement by assessing the extent to which parental reading may both accelerate children's academic achievement, as the link is traditionally conceptualized, as well as protect children from falling behind when they are remedial readers. This later "advantage" bestowed upon children of highly educated mothers has not been explored extensively in current research.

This analysis links parents' time spent reading with children to children's verbal achievement using data on 2,325 children aged 0 to 12 in 1997 from the nationally representative Panel Study of Income Dynamics Child Development Supplement. Analyzing children's time diaries—the most reliable and valid data on children's time use—I find that, consistent with previous research, children of college-educated mothers are read to more often than children of less educated mothers (see Table 1). These investments are also linked to children's verbal aptitude, as assessed by children's letter-word subtests of the Woodcock-Johnson Revised Test of Basic Achievement, and the linkages are strongest when children are young. As expected, reading with parents is positively associated with verbal development among preschool-aged

children. By the time children reach school age, however, reading is *negatively* associated with verbal achievement (see Table 2). At this age, reading with parents seems to be some sort of remedial assistance to children who are struggling, rather than a general investment that may enhance children's verbal development.

Children of highly educated mothers get this kind of help at rates much higher than children of less-educated mothers (almost no children whose mothers are less than high school educated receive reading help from their mothers). This implies children of well-educated mothers are more likely to get a kind of protective assistance from parents at a time when they may need it the most. We generally think of the advantages conferred by highly educated parents as some sort of fast-tracking that helps their already advantaged children pull even further ahead. This finding suggests the children of highly educated mothers may also be advantaged in that their parents may be more likely to intervene when they fall behind. In sum, highly educated parents are not only likely to read to their children during the critical formative years of brain development, but these parents may also be better able to provide the kind of assistance their school-aged children need when they are having problems with their verbal abilities.

Table 1. Adjusted Estimates of Children (Aged 0-12)'s Overall Hours Per Week Reading with Parents by Maternal Education, 1997

	Mothers have less than high school	Mothers have HS degree only	Mothers have some college	Mothers are college- educated	
Children Aged 0-5					
Percent who read with parents	29.0%	35.9%	49.1%	54.9%	AB
Reading with parents among participants only	3.5	3.8	4.4	4.3	
Overall hours per week child read with parents	0.6	0.8	1.4	1.5	AB
Overall hours per week child read without parents	0.4	0.4	0.3	0.2	
N	187	310	326	216	
Children Aged 6-12					
Percent who read with parents	2.2%	11.1%	17.5%	25.3%	AB
Reading with parents among participants only	1.8	2.8	1.8	2.2	
Overall hours per week child read with parents	0.0	0.4	0.4	0.6	A
Overall hours per week child read without parents	0.4	0.8	0.8	1.2	A
N	224	435	396	231	

^Achildren of college-educated mothers different from children of mothers with less than high school, p-value < 0.05;

^Bchildren of college-educated mothers different from children of mothers with only a high school degree, p-value < 0.05;

^Cchildren of college-educated mothers different from children of mothers with some college, p-value < 0.05.

Predicted means based on OLS and logistic regression models that control for mother's age, sex of the child, race of the child, family income, family structure, maternal employment, number of children in the family, and season of the time diary.

Table 2. OLS Regression Coefficients of Letter-Word Comprehension on Maternal Education and Maternal Reading with Children Among Children Aged 3-12 in 1997

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<i>Children Aged 3-5</i>							
Mother has less than h.s. degree	-14.1 ***	-11.9 ***	-6.8 *	-6.9 *	-5.5 #	-1.3	-0.2
Mother attained a h.s.degree	-10.1 ***	-8.5 ***	-4.7 #	-4.6 #	-3.5	-0.2	0.7
Mother has some college	-3.5	-3.2	-0.8	-0.8	-0.3	0.8	1.2
<i>Reading with parents indicator</i>		6.2 ***	5.9 **	5.6 ***	5.7 **	5.5 **	5.1 **
Family income \$75,000 or more			7.6 **	5.7 #	4.5 *	4.3	5.4 *
Family income \$50,000 - \$75,000			4.3	2.5	1.9	2.0	3.1
Family income \$30,000 - \$50,000			0.4	-1.0	-1.0	-1.8	-1.8
Single-mother family				-3.1	-3.1	-2.2	-2.9
Biological mother and stepfather				-4.2	-2.6	-1.9	0.2
Mother is 17 - 24 years old					-1.7	-0.9	-0.8
Mother is 25 - 29 years old					1.3	2.0	1.4
Mother is 35 - 39 years old					4.4 *	4.4 *	4.8 *
Mother is 40 - 44 years old					3.9	2.5	3.0
Mother is 45 or older					0.1	1.3	0.7
Mother's reading comp score						0.2 ***	0.3 ***
R-squared	0.10	0.14	0.18	0.18	0.20	0.24	0.27
N	419	419	419	419	419	419	419
<i>Children Aged 6-12</i>							
Mother has less than h.s. degree	-15.5 ***	-15.9 ***	-12.9 ***	-12.9 ***	-13.3 ***	-9.8 ***	-8.8 ***
Mother attained a h.s.degree	-9.7 ***	-10.0 ***	-8.4 ***	-8.3 ***	-8.2 ***	-5.9 **	-6.0 ***
Mother has some college	-5.3 **	-5.4 **	-4.5 *	-4.5	-4.4 *	-3.4 #	-3.5 *
<i>Reading with parents indicator</i>		-2.2	-2.3	-2.7 #	-2.6 #	-2.8 #	-3.5 *
Family income \$75,000 or more			5.4 **	3.8 #	3.6 #	2.5	2.3
Family income \$50,000 - \$75,000			3.8 *	2.2	2.0	1.2	0.8
Family income \$30,000 - \$50,000			4.7 **	3.4 #	3.5 *	2.2	1.3
Single-mother family				-2.59	-2.86 #	-1.8	-0.3
Biological mother and stepfather				-3.9 *	-3.75 #	-3.5 #	-2.9
Mother's age 17 - 24 years old					-0.4	0.5	-1.1
Mother's age 25 - 29 years old					-1.0	-0.8	-1.5
Mother's age 35 - 39 years old					-2.0	-1.7	-1.9
Mother's age 40 - 44 years old					-1.4	-1.1	-1.2
Mother's age is 45 or older					3.0	3.0	1.7
Mother's reading comprehension score						0.2 ***	0.2 ***
R-squared	0.11	0.11	0.13	0.14	0.14	0.17	0.23
N	1100	1100	1100	1100	1100	1100	1100

***p < 0.001, **p < 0.01, *p < 0.05, #p < 0.10

Model 1 shows the association with parental education only; Model 2 adds parental investment indicators; Model 3 includes family resources/income, Model 4 adds family structure indicators, Model 5 adds maternal age, Model 6 includes mother's reading comprehension score; and Model 7 is the full model with all family background covariates as described in Appendix Table 3.1.