

Children's Elementary School Outcomes After Participating in Family Literacy Programs

The First 5 LA Family Literacy Initiative is a comprehensive program to promote language and literacy development, parenting knowledge and skills, and economic self-sufficiency among low-income families in Los Angeles County. Each participating agency provides services through four interrelated Family Literacy program components: 1) early childhood education, 2) parent-child interactive literacy activities (PCILA), 3) parenting education, and 4) adult education. Family Literacy programs serve primarily low-income families with low parent education levels, whose home language is not English. Achievement gaps between students with high parent education levels and those with low parent education levels are well-documented,¹ as are achievement gaps between native English speakers and English language learners.² Family literacy programs aim to reduce these gaps through early education experiences and supporting parent involvement in early elementary school.

Findings from the eight-year evaluation of this Family Literacy Initiative have shown significant growth in language and literacy skills among children participating in these programs. Analyses of the evaluation's survey of alumni parents found that parents also appeared to maintain, or even increase, their level of participation in their child's school after leaving the Family Literacy program. As a next step, this elementary school follow-up study examined how children who participated in the Family Literacy Initiative performed when they went on to elementary school. Specifically, this brief addresses the question of how children who participated in Family Literacy Initiative program activities perform on measures of school participation and achievement relative to children who did not participate in Family Literacy program activities.



Approach to Measuring Elementary Student Performance

To evaluate outcomes at the elementary level, the research team worked with First 5 LA and the Los Angeles Unified School District (LAUSD) to locate LAUSD student record files for children who participated in the Family Literacy Initiative, and also to obtain a pool of potential comparison students who had not participated in Family Literacy but had participated in another kindergarten readiness program. In total, 423 Family Literacy children who entered kindergarten in the school years 2004-05

(cohort 1, n=111), 2005-06 (cohort 2, n=151), and 2006-07 (cohort 3, n=161) were identified in LAUSD's student record files and had complete demographic data needed for inclusion in the analysis. Attendance records and achievement test scores were obtained for all grades available for these students (grades K-5 for cohort 1, grades K-4 for cohort 2, and grades K-3 for cohort 3).

It was not possible to compare children who participated in the Family Literacy Initiative to children with no preschool experience, as these children could not be identified in the data. As an alternative, LAUSD was able to provide data on children who participated in the School Readiness Language Development Program (SRLDP), the largest preschool program offered through the district, so that outcomes for Family Literacy children could be compared against a pool of children who received a common and well-defined set of early childhood services. SRLDP offers preschool programs that stress oral language development for four-year olds for 10 hours per week. SRLDP also provides a 10-week parent education component that includes monthly meetings with the child's teacher and monthly volunteering in the SRLDP classroom. Overall, the Family Literacy Initiative is more intensive than the SRLDP. Family Literacy programs can serve children from birth through age 5, and, on average:

- Family Literacy children receive 15 hours of early childhood education plus 2-3 hours of parent-child interaction time each week.
- Parents receive 10-12 hours of adult education and 2-3 hours of parenting education each week.

To ensure that comparisons made between students in the Family Literacy programs and comparison group were valid, a sample of students was drawn from the SRLDP group to match the demographics in the treatment group.³ The research team then used regression analyses to compare outcomes for children who participated in Family Literacy with those who did not, while controlling for demographic characteristics. Groups were compared on absence rates for all grades (K-5), English language development level at kindergarten enrollment, and test scores in English language arts and mathematics in grades 2-5.

Elementary School Attendance

A comparison of elementary school attendance rates shows that students who participated in the Family Literacy Initiative had statistically higher attendance in elementary school than SRLDP students, on average. Figure 1 shows that Family Literacy students had significantly lower absence rates than the matched comparison sample of SRLDP students in grades 1-4.

Fig. 1 Mean absence rates for students in grades K-5

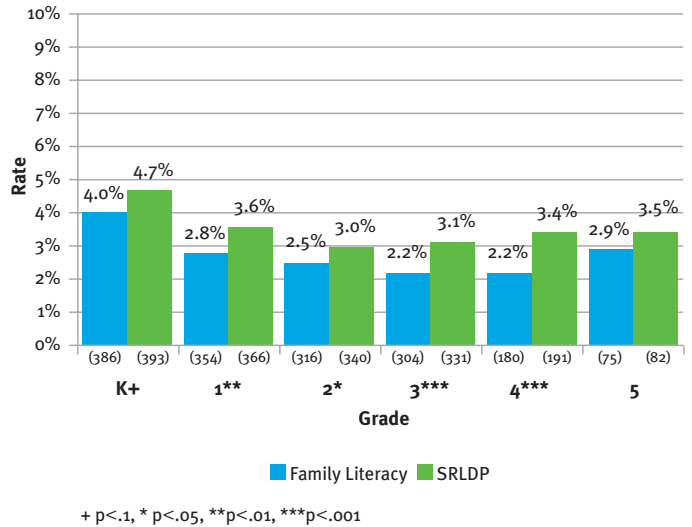


Fig. 2 Mean CELDT scale score for students at initial assessment in kindergarten

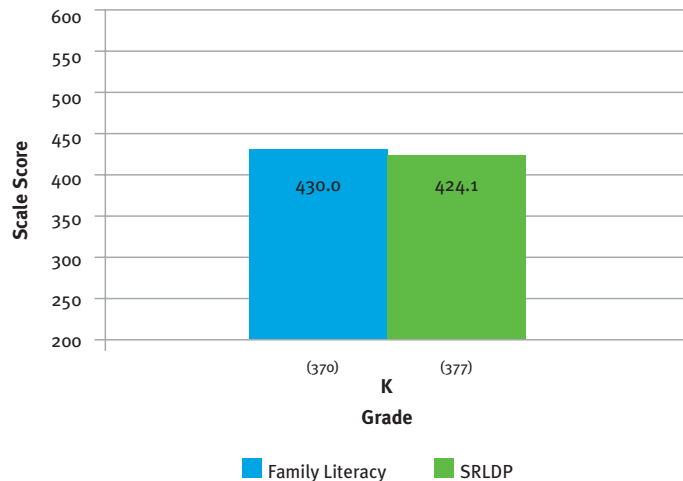
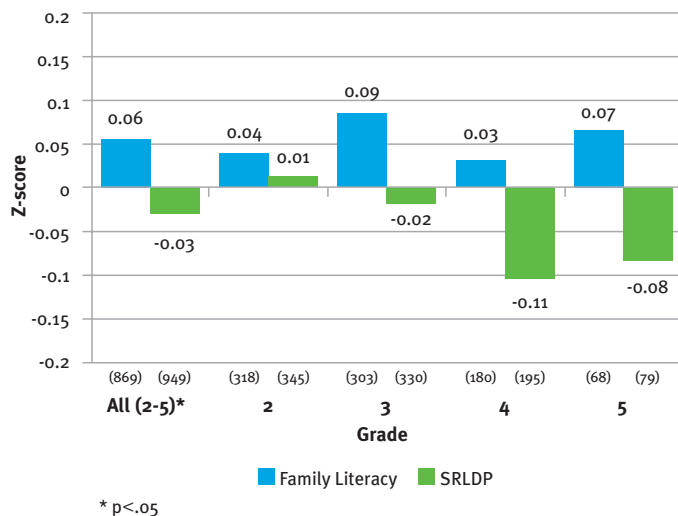


Fig. 3 Mean CST English Language Arts Z-scores for students in grades 2-5



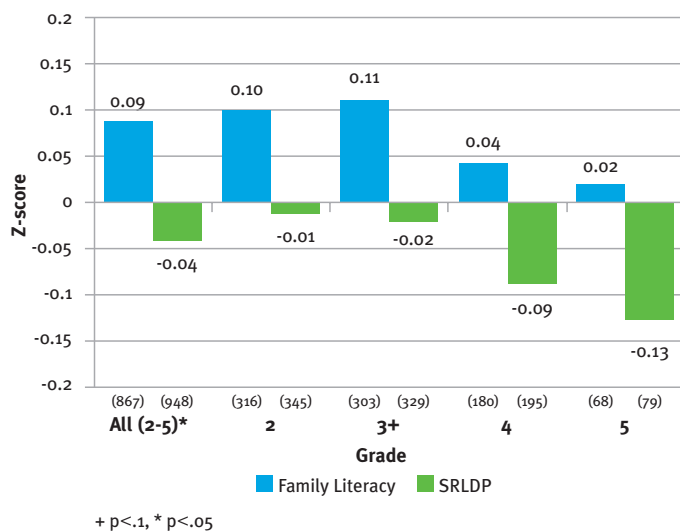
English Language Skills at Kindergarten Entry

Overall, children from Family Literacy and SRLDP programs entered kindergarten with similar English language skills. Figure 2 shows that English language development scores—as measured by the California English Language Development Test (CELDT) at kindergarten entry⁴—were statistically equivalent for the demographically-matched Family Literacy and SRLDP students. On average, Family Literacy students scored 430.0 points and their SRLDP peers scored 424.1 points out of a possible score of 600; both of these scores are in the Intermediate range.

Achievement Test Scores

Although English language skills at kindergarten entry were comparable for Family Literacy and SRLDP participants, children who participated in Family Literacy programs performed better than their SRLDP peers on California Standards Test (CST) exams in both English language arts and mathematics. The z-scores for Family Literacy and SRLDP students on the English language arts and mathematics CST exams are shown in Figures 3 and 4.

Fig. 4 Mean CST Mathematics Z-scores for students in grades 2-5



For grades 2 through 5 combined, Family Literacy students outperformed the SRLDP students on the English language arts assessment by a small, but statistically significant margin. Group differences were only significant for the combined group of grades 2-5, however; differences between the two groups at individual grade levels (where sample sizes were smaller) were not statistically significant.

Similarly, for the math assessment, Family Literacy students in grades 2 through 5 combined scored above the SRLDP students—a modest, but statistically significant, difference. Although differences between the two groups at grades 2, 4, and 5 were not statistically significant, the difference at grade 3 was marginally significant.

Summary and Conclusions

Overall, this analysis found that children who had attended Family Literacy and SRLDP programs entered kindergarten with similar English language skills. However, Family Literacy students had higher attendance rates and performed better on the CST English language arts and math assessments (for grades 2 through 5 combined) in elementary school than did their demographically-matched peers from the SRLDP program.

It is important to note several limitations of this analysis. First, the pool of Family Literacy children located in LAUSD's student record data represents a relatively small proportion (40 percent) of the children who were attending Family Literacy programs within the LAUSD catchment area and would therefore be expected to attend kindergarten in an LAUSD school. It is unclear why some children who participated in Family Literacy programs were not found in the school district data. Student mobility rates are high among the population of families who commonly attend Family Literacy programs, so it is possible that these children moved away; slight differences in the spelling of names or errors in birthdates preventing accurate matches could also be the cause. In addition, sample sizes are small for some grades—especially grade 5, where only cohort 1 students could be included. Finally, although this analysis uses a demographically matched comparison group as a benchmark to assess Family Literacy student performance, it was not possible to match students on academic achievement prior to participating in Family Literacy or SRLDP, nor was it possible to randomly assign students to treatment and control conditions. Therefore it cannot be ruled out that Family Literacy students differed in an important, but unmeasurable, way from SRLDP students at preschool

enrollment, and differences cannot be attributed directly to program participation.

Despite these limitations, results presented here suggest that Family Literacy participants continued to show positive outcomes—both behavioral and academic—long after their Family Literacy experiences and well into elementary school. Although performance differences between Family Literacy children and the comparison group are generally modest, the fact that results consistently show Family Literacy children outperforming their peers should encourage further interest in this comprehensive parent-and-child program model from policymakers and program developers.

First 5 LA is an organization created by California voters to invest tobacco tax revenues in programs that improve the lives of children in Los Angeles County, from prenatal through age 5. First 5 LA contracted with the American Institutes for Research (AIR) to conduct an eight-year evaluation of the Initiative's implementation, examining each of these components and their associated outcomes for families.

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References

1. U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), NAEP 2004 Trends in Academic Progress; and 2008 NAEP Long-Term Trend Reading Assessment, retrieved May 4, 2009, from Long-Term Trend NAEP Data Explorer (<http://nces.ed.gov/nationsreportcard/naepdata/>).
2. U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Reading Assessment, retrieved April 13, 2010, from the Main NAEP Data Explorer
3. To create the comparison samples, the study team used propensity score matching. The following variables were included in the matching: gender, race/ethnicity, primary language (English, Spanish or other), free or reduced price lunch status, parent education, special education status, migrant education status, and English language learner test status. The school where the student attended kindergarten was also included as a matching variable so that comparison students could be drawn from the same neighborhoods and schools. While t-tests found that propensity score matching did improve the similarity of the two samples, it is possible that Family Literacy students differed from SRLDP students in unmeasured ways at preschool enrollment, and differences presented in this brief cannot be attributed directly to program participation.
4. Analyses of CELDT scores in higher grades were not conducted. CELDT scores were identified as the chief outcome measure for kindergarten, so this was the primary focus. In addition, students who are redesignated as English proficient stop taking the CELDT; therefore the higher performing students are removed from the sample each year, making comparisons of progress among Family Literacy and comparison students using CELDT data difficult.

Acknowledgements

First 5 LA is a unique child-advocacy organization created by California voters to invest tobacco tax revenues in programs for improving the lives of children in Los Angeles County, from prenatal through age 5. First 5 LA champions health, education and safety causes concerning young children and families. For additional information about First 5 LA, our partners and programs, visit www.First5LA.org or email First5LAResearch@first5la.org.

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