



Strength of Research, Significance of Effect, and Magnitude of Effect

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For more than two decades The Institute for School Innovation, who owned Project CHILD until 2012, has systematically collected, analyzed, and reported on the effectiveness of Project CHILD in improving student achievement. The studies provide evidence that students participating in Project CHILD learn more than students learning from traditional classroom methods and systems. Ten of these independent studies are described as evidence that Project CHILD works as an effective method for increasing student achievement across a wide spectrum of schools and school districts.

1. NDN Validation Study (F J King, Constance Bergquist, Cornelia Orr). In 1992, Project CHILD received validation by the Program Effectiveness Panel (PEP) of the U.S. Department of Education’s National Diffusion Network. The research methodology, conducted by an external university contractor, compared standardized test scores for 1,500 students in nine schools located throughout Florida who participated in Project CHILD with students at the same schools who did not participate but received the regular curriculum in the school (pre-post comparison group design using analysis of covariance and confidence intervals). Schools encompassed all economic and demographic levels in the state. The effect size was determined by subtracting the mean non-CHILD scores from the mean CHILD scores divided by the pooled standard deviation. Positive or negative effects were determined for reading, mathematics, and the total battery. An effect size of zero would have meant that the program made no difference. The Project CHILD program demonstrated positive effects in all sub-tests (reading, mathematics, language arts) across most grade levels.

Combined Effect Sizes (grades 1-5) +.35 reading +.47 mathematics +.38 total battery

Continuing comparisons for students who remained in the program in subsequent years showed increasing positive effects. Fewer Project CHILD students were retained as compared to the non-CHILD students across the nine schools. CHILD average retention rate was 1% compared to 3% for non-CHILD. Four of the CHILD schools had no CHILD retentions.

The instruments had established validity and reliability, and threats to internal validity were controlled either through the comparison group design or through analysis of covariance to establish statistically the equivalency of the Project CHILD and the non-experimental groups. The innovative program was implemented in a variety of settings that demonstrated generalizability, although in some schools parents opted to place their students in the Project CHILD classes, a factor that might jeopardize the generalizability of the results.

Evaluators conducted visits to several sites to document full implementation of the program. The methods and findings were sufficiently rigorous to be approved by the Joint Dissemination Review Panel that led to approval by the National Diffusion Network, and were published as well in the refereed journal *Florida Technology in Education Quarterly*, Vol 4, Number 4, Summer, 1992.

2. Evaluation Report, Project CHILD, 1992-93 (Ora Kromhout, Florida State University).

Several follow-up studies were conducted with more Florida schools in subsequent years. In 1993, an independent evaluation report documented the effects of the program in 7 schools, with the percent of students participating in the free/reduced priced lunch program ranging from 27% to 87%. Instruments were the Comprehensive Test of Basic Skills (CTBS) or Stanford Achievement Test (SAT), both with established reliability and validity. A meta-analysis using confidence intervals demonstrated statistically significant increases in favor of the Project CHILD students across all grade 1-5 comparisons in reading, mathematics and the total battery (effect size of +.25), demonstrating both statistical and educational significance (pre-post comparison group design). The study included surveys of parents and teachers that demonstrated very positive responses to the program.

3. Florida TaxWatch Comparative Evaluation of Project CHILD, 2001-2002. Using a comparison group design, this independent organization conducted analyses of the impact of Project CHILD in three schools that were fully implementing Project CHILD in either selected classes or in the whole school. Each school was located in a different Florida school district spread geographically across the state. Instruments were the Stanford Achievement Test in grades 1 and 2, and Florida's Norm-Referenced Test in grades 3, 4, and 5, both with established reliability and validity. Schools varied in free/reduced lunch and minority rates (23.5% - 87% free/reduced lunch, and 16% to 90% minority). Comparison schools were identified in each district to match results on these factors and ensure an appropriate comparison. Statistical analyses were conducted using independent t-tests and the Mann Whitney non-parametric tests, as appropriate. Individual school analyses documented that in one school, CHILD students in grades 3, 4, and 5 outperformed the comparison school across the board in reading and mathematics. The grade 3 mathematics difference was statistically significance at $p < 0.05$, and the grade 4 reading and math significance level was $p < 0.01$. In a second district/school, CHILD students in grades 3, 4, and 5 outperformed the control school on all reading and mathematics comparisons. Scores were statistically significant at the 0.01 level by all tests applied. In the third school, 9 of the 10 comparisons were statistically significant in favor of the CHILD classrooms. This study had strong internal and external validity, and the application of the project in a variety of demographic and geographic settings support the generalizability of the program.

4. Georgia Department of Education Innovation Program, Comparative Evaluation in Two Title I Schools (Camden County, GA and Thomas County, GA, 2000). In 2000, Project CHILD was validated by the Georgia Department of Education in a unanimous decision that it met all criteria for state validation and was approved for statewide dissemination for schools choosing to adopt the program. Instruments included the Iowa Tests of Basic Skills (ITBS), Georgia's Basic Literacy Test (BLT), and the Georgia Writing Assessment. A pre-post comparison group design was employed to examine student achievement increases in reading, writing, and mathematics in grades 1-5, although measures differed. Two schools participated with a total of 105 CHILD students, compared with 147 non-CHILD students. Analysis of covariance documented statistically significant effects in favor of Project CHILD students in reading for primary students ($p=.02$) with an effect size of .29. Statistically significant increases were also noted in grade 3 ($p=.002$). Statistically significant effects were also noted in grade 3 mathematics ($p=.03$ and ES of .11). Note that the small numbers of students at individual grade levels limited the power of the grade level statistical tests. Results in writing consistently supported the claim that Project CHILD leads to more writing growth than conventional instruction in grades K-2.

5. National School Change Award Winner, 2001-2004. Using Project CHILD as its instructional model, South Heights Elementary School in Henderson, KY improved over four years from being a targeted assistance failing school to a national award winner. CHILD students' reading, math and science index scores all increased at least 30 points in 2004, exceeding the state expectations. Results were published in *The Education Innovator* #9, v3, March 7, 2005, by the U.S. Department of Education.

6. CHILD for At-Risk Students Report from Okaloosa County, FL, 2008-2009. This study conducted by the school district examined the use of Project CHILD with at-risk students in grades 3-5 in eight schools. Students scoring Level 1 and 2 (below passing) on FCAT (Florida Comprehensive Assessment Test) at each school were placed in an intensive intervention CHILD intermediate cluster. After the first year of intervention, the percent passing per school (Level 3 or higher) increased from zero % to 65%-81% for Grade 3; 71%-95% Grade 4; and 67%-96% Grade 5.

7. CHILD Program in Miami-Dade County, FL, 1995-1998. A comparative evaluation was conducted of the impact on reading and mathematics at two "technology rich" demographically matched schools in Miami-Dade County, FL, one school using Project CHILD and the other not using the program. After using the program for three years, CHILD students scored higher on all test comparison in reading and mathematics than the non-CHILD students. *Journal of Research on Computing in Education*, v.33, number 4, Summer, 2001.

8. Closing Achievement Gaps in Six Marion County, FL Schools, 2002-2004. On SAT-9 and FCAT reading tests for Grades 1, 2, 3, 4, and 5 African Americans and economically disadvantaged CHILD students performed better on 9 out of 10 comparisons than the control group. Hispanic and Caucasian CHILD students performed better on 8 out of 10 comparisons. Source: Florida TaxWatch (March 2005) <http://www.floridataxwatch.org/resources>.

9. Comparative Evaluation in Five Diverse Florida Schools in Broward County, Duval County, Hernando County, Lake County, Sarasota County, 2000-2001). CHILD students scored significantly higher in 75% of subtests for reading and mathematics in grades 1-5 than did the control group. Source: Florida TaxWatch (October, 2001), <http://www.floridataxwatch.org/>).

10. Longitudinal Follow-Up for CHILD Students Matriculating to Middle School in Okaloosa County, FL, 1994 (Barbara Gill, Florida State University). Middle school students with CHILD experience in elementary school were 5 and 10 percentiles higher as measured by CTBS (Comprehensive Test of Basic Skills) than matched samples of non-CHILD students for reading, math, and total battery. 41.6% of CHILD students were enrolled in advanced math compared to 25.5% non-CHILD.

The consistent positive impact of Project CHILD has been demonstrated repeatedly over more than two decades of implementation using a variety of student achievement outcome measures through pre-post comparison group designs and statistical testing of the outcomes. The generalizability of the impact of the program has been displayed across many populations and geographic areas. Project CHILD can and is making an important difference in the student achievement levels of participating children.

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