

What Works Clearinghouse



Curiosity Corner

Program description² *Curiosity Corner* is an early childhood curriculum emphasizing children’s language and literacy skills. It comprises two sets of 38 weekly thematic units—one for three-year-olds and one

for four-year-olds. Program staff conduct daily lessons using sequential daily activities.

Research One study of *Curiosity Corner* meets the What Works Clearinghouse (WWC) evidence standards, and one study meets WWC evidence standards with reservations.³ The two studies included more than 500 preschool children from 34 preschools in Florida, Kansas, and New Jersey.⁴

Based on these two studies, the WWC considers the extent of evidence for *Curiosity Corner* to be medium to large for oral language and small for print knowledge, phonological processing, cognition, and math. No studies that meet WWC standards with or without reservations examined the effectiveness of *Curiosity Corner* in the early reading and writing domain.

Effectiveness *Curiosity Corner* was found to have no discernible effects on oral language, print knowledge, phonological processing, cognition, and math.

	<i>Oral language</i>	<i>Print knowledge</i>	<i>Phonological processing</i>	<i>Early reading and writing</i>	<i>Cognition</i>	<i>Math</i>
Rating of effectiveness	No discernible effects	No discernible effects	No discernible effects	na	No discernible effects	No discernible effects
Improvement index⁵	Average: +2 percentile points Range: -3 to +14 percentile points	Average: +3 percentile points Range: +2 to +4 percentile points	Average: +7 percentile points	na na	Average: -3 percentile points Range: -4 to -1 percentile points	Average: +4 percentile points Range: 0 to +6 percentile points

na = not applicable

1. This report has been updated to include a review of two studies that have been released since 2006. A complete list and disposition of all studies reviewed is provided in the references.
2. The descriptive information for this program was obtained from a publicly-available source: the program’s website (www.successforall.org/early/early_curiosity.htm, downloaded November 2008). The WWC requests developers to review the program description sections for accuracy from their perspective. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review.
3. To be eligible for the WWC’s review, the Early Childhood Education intervention had to be implemented in English, in center-based settings, with children aged three to five years, or in preschool.
4. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.
5. These numbers show the average and range of student-level improvement indices for all findings across the studies.

Absence of conflict of interest

The PCER Consortium (2008) study summarized in this intervention report had numerous contributors, including staff of Mathematica Policy Research, Inc. (MPR). Because the principal investigator for the WWC Early Childhood Education review is

Additional program information

Developer and contact

Curiosity Corner was developed and is distributed by The Success for All Foundation. Address: Success For All Foundation, Inc., 200 W. Towsontown Boulevard, Baltimore, MD 21204-5200. Email: sfainfo@successforall.org. Web: www.successforall.org/early/early_curiosity.htm. Telephone: (800) 548-4998, ext. 2372.

Scope of use

Curiosity Corner is currently implemented in more than 300 sites in 29 states. *Curiosity Corner* is used in Head Start centers, preschool classes in elementary schools, child care centers, and early childhood education centers, mostly in high-poverty neighborhoods.

Teaching

Curiosity Corner can be implemented in various early childhood settings; however, settings are typically composed of about 15 children with a teacher and an assistant. Additional teaching staff are required for children who need special care or with special needs. The program includes a teacher's manual and weekly theme guides to provide teachers with detailed instructions for lessons and supplies (themed children's books, manipulatives, and games) for the instructional activities. Teachers are also given initial training and follow-up support (workshops and in-class visits by the Success for All Foundation staff).

Curiosity Corner is organized by weekly themes. Daily activities—which proceed in a sequential order to provide children with active learning experiences—include Greetings and Readings, Clues and Questions, Rhyme Time, Learning Labs, Story

also an MPR staff member, the study was rated by Chesapeake Research Associates, who also prepared the intervention report. The report was then reviewed by the principal investigator, a WWC Quality Assurance reviewer, and an external peer reviewer.

Tree, Outside/Gross Motor Play, Snack Time, and Question/Reflection. Although designed to enhance the development of the whole child, the program emphasizes children's language and early literacy skills. Parents are encouraged to participate through various activities both in and out of the classroom, such as home visits, the Home Link Page, a lending library, videos, and classroom activities.

The Success for All Foundation staff provides professional development. The first year of professional development includes an initial two-day training session, additional training sessions and ongoing implementation visits, and a fall conference for *Curiosity Corner* coaches and facilitators. The second year includes a one-day refresher session, subsequent training sessions and ongoing implementation visits, and training available at experienced sites and conferences for *Curiosity Corner* coaches.

Cost⁶

Teaching materials for *Curiosity Corner* cannot be purchased without participating in training and other professional development activities. The teaching materials, costing \$2,825 per class, come with a teacher's manual, 38 weekly theme guides, and more than 150 children's trade books, manipulative materials, games, and puppets. The first year of professional development costs on average \$1,516 per classroom and includes initial training and follow-up support. Costs for the second year of professional development are based on the amount of time for which administrators contract.

6. The WWC requested the developer to review this information in August 2008.

Research Three studies reviewed by the WWC investigated the effects of *Curiosity Corner*. One study is a randomized controlled trial that meets WWC evidence standards. A second study is a quasi-experimental study that meets WWC evidence standards with reservations. The remaining study does not meet WWC eligibility screens.

Meets evidence standards

One study reviewed by the WWC, PCER Consortium (2008), assesses *Curiosity Corner's* effectiveness as part of the Preschool Curriculum Evaluation Research (PCER) effort.⁷ PCER Consortium (2008) used a randomized controlled trial design in which 18 preschools in Florida, Kansas, and New Jersey were randomly assigned to implement *Curiosity Corner* or to a control group. The study sample included children in 31 classrooms. Following parent consent, data were collected on 211 children. Half of the children were male, half were African-American, and 14% were reported to have a disability. Pretests were collected in the fall and posttests in the spring of the preschool year. The study investigated effects on oral language, print knowledge, phonological processing, and math. The comparison condition varied across sites and included both teacher-developed and branded curricula.

Meets evidence standards with reservations

Chambers, Chamberlain, Hurley, and Slavin (2001), the second study, investigates the effects of *Curiosity Corner* using a quasi-

experimental design that meets WWC evidence standards with reservations. The study included 316 children in 16 private and public preschools (three-year-old children at private child care centers and four-year-old children at public schools from four urban, high-poverty school districts in New Jersey). More than two-thirds of the children were African-American. Pretests were collected in the fall and posttests in the spring. The authors compared oral language and cognitive outcomes for children in a *Curiosity Corner* intervention group with those for children in a comparison group that used the classroom's standard early childhood curriculum.

Extent of evidence

The WWC categorizes the extent of evidence in each domain as small or medium to large (see the What Works Clearinghouse Extent of Evidence Categorization Scheme). The extent of evidence takes into account the number of studies and the total sample size across the studies that met WWC evidence standards with or without reservations.⁸ The WWC considers the extent of evidence for *Curiosity Corner* to be medium to large for oral language and small for print knowledge, phonological processing, cognition, and math. No studies that met WWC evidence standards with or without reservations addressed early reading and writing.

Effectiveness Findings

The WWC review of interventions for early childhood education addresses children's outcomes in six domains: oral language, print knowledge, phonological processing, early reading and

writing, cognition, and math. The studies included in this report cover five domains: oral language, print knowledge, phonological processing, cognition, and math. The findings below present the authors' and the WWC-calculated estimates of the size

7. Preschool Curriculum Evaluation Research (PCER 2008) evaluated a total of 14 curricula, including *Curiosity Corner*, in comparison to the respective local control conditions.
8. The Extent of Evidence Categorization was developed to tell readers how much evidence was used to determine the intervention rating, focusing on the number and size of studies. Additional factors associated with a related concept—external validity, such as the students' demographics and the types of settings in which studies took place—are not taken into account for the categorization. Information about how the extent of evidence rating was determined for *Curiosity Corner* is in Appendix A6.

Effectiveness (continued)

and statistical significance of the effects of *Curiosity Corner* on children's performance.⁹

Oral language. Chambers et al. (2001) analyzed the differences between the *Curiosity Corner* and comparison groups for two measures (Mullen Scales of Early Learning [MSEL] Expressive Language Scale and MSEL Receptive Language Scale) in this outcome domain. The authors report findings separately for 3-year-old children in private child care centers and 4-year-old children in public school programs. The authors report a statistically significant effect of *Curiosity Corner* on Expressive Language for 3-year-old children but not for 4-year-old children. The effect size reported by Chambers et al. for the difference on the MSEL Expressive Language Scale between the 3-year-old *Curiosity Corner* and comparison groups is large enough to be considered substantively important according to WWC criteria (that is, at least 0.25). In WWC calculations, the differences are not statistically significant for either 3- or 4-year-old children on Expressive Language. For Receptive Language, Chambers et al. report, and the WWC confirms, the difference is not statistically significant or substantively important for 3- or 4-year-old children. The average effect size for oral language in this study, combining age groups and both measures in this domain, is not statistically significant or substantively important. PCER Consortium (2008) analyzed the effectiveness of *Curiosity Corner* on the Peabody Picture Vocabulary Test (PPVT-III) and the Test of Language Development (TOLD). The authors report, and the WWC confirms, differences between the treatment and control groups are not statistically significant or substantively important. According to WWC criteria, these two studies show no discernible effects on oral language.

Print knowledge. PCER Consortium (2008) analyzed *Curiosity Corner's* effectiveness on the Test of Early Reading Ability (TERA-3), the Woodcock-Johnson (WJ III) Letter Word

Identification subtest, and the WJ III Spelling subtest. The study shows, and the WWC confirms, no statistically significant or substantively important differences between treatment and control groups on any of these measures, and thus, no discernible effects on print knowledge.

Phonological processing. PCER Consortium (2008) also examined *Curiosity Corner's* effects on the Elision subtest from the Preschool Comprehensive Test of Phonological Processing (Pre-CTOPPP). The study shows, and the WWC confirms, no statistically significant or substantively important differences between children who participated in *Curiosity Corner* and those in the control group, and thus, no discernible effects on phonological processing.

Cognition. Chambers et al. (2001) analyzed the differences between the *Curiosity Corner* and comparison groups for one measure (MSEL Visual Reception scale) in the cognition outcome domain. The authors report, and the WWC confirms, the difference between the intervention and comparison groups is not statistically significant for either 3- or 4-year-old children. According to WWC calculations, the effect sizes are not large enough to be considered substantively important and thus, according to WWC criteria, the study showed no discernible effects in this domain.

Math. PCER Consortium (2008) examined *Curiosity Corner's* effect on three math outcomes: the WJ III Applied Problems subtest, the Composite Score subtest from the Child Math Assessment-Abbreviated, and Shape Composition. The study shows, and the WWC confirms, none of the differences between children in the treatment and control groups are statistically significant or substantively important. Thus, according to WWC criteria, the study shows no discernible effects of *Curiosity Corner* on the math domain.

9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation, see the WWC Tutorial on Mismatch. For the formulas the WWC used to calculate the statistical significance, see Technical Details of WWC-Conducted Computations. For the *Curiosity Corner* study by Chambers et al. (2001) summarized here, a correction for clustering was needed. No corrections were needed for PCER Consortium (2008) because the analysis corrected for clustering by using HLM and no impacts were statistically significant.

Effectiveness (continued)

Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research

design, the statistical significance of the findings, the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the WWC Intervention Rating Scheme).

The WWC found *Curiosity Corner* to have no discernible effects on oral language, print knowledge, phonological processing, cognition, and math

Improvement index

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study and an average improvement index across studies (see Technical Details of WWC-Conducted Computations). The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is based entirely on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analyses. The improvement index can take on values between -50 and +50, with positive numbers denoting results favorable to the intervention group.

Curiosity Corner's average improvement index for oral language is +2 percentile points across the two studies, with a range of -3 to +14 percentile points. For print knowledge, one study showed an average improvement index of +3 percentile

points, with a range of +2 to +4 percentile points across findings. For phonological processing, the average improvement index was +7 percentile points based on one study. For cognition, the average improvement index was -3 percentile points across findings in one study, with a range of -4 to -1 percentile points. The average improvement index for math was +4 percentile points from one study, with a range of 0 to +6 percentile points across findings in one study.

Summary

The WWC reviewed three studies of *Curiosity Corner*. One meets WWC evidence standards, and one meets WWC evidence standards with reservations. One study did not meet eligibility screens. Based on the two studies, the WWC found no discernible effects of *Curiosity Corner* on oral language, print knowledge, phonological processing, cognition, or math. The conclusions presented in this report may change as new research emerges.

References

Meets WWC evidence standards

Preschool Curriculum Evaluation Research (PCER) Consortium. (2008). Chapter 5. *Curiosity Corner: Success for All Foundation*. In *Effects of Preschool Curriculum Programs on School Readiness* (pp. 75-83). Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education.

Meets WWC evidence standards with reservations

Chambers, B., Chamberlain, A., Hurley, E. A., & Slavin, R. E. (2001). *Curiosity Corner: Enhancing preschoolers' language abilities through comprehensive reform*. Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA, April 2001.

Additional source:

Curiosity Corner summary of research: First year findings. Retrieved July 29, 2008, from http://www.successforall.com/_images/pdfs/410409000_CC_Research.pdf.

References *(continued)*

Studies that fall outside the Early Childhood Education protocol or do not meet WWC evidence standards

Chambers, B., Cheung, Alan C. K., & Slavin, R. E. (2006). Effective preschool programs for children at risk of school failure: A best evidence synthesis. In B. Spodek, & O. N. Saracho

(Eds.), *Handbook of research on the education of young children* (Second ed., pp. 347-359). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention.

For more information about specific studies and WWC calculations, please see the [WWC Curiosity Corner Technical Appendices](#).