

What Works Clearinghouse



Curiosity Corner

Program description *Curiosity Corner* is a comprehensive early childhood curriculum designed to help children at risk of school failure because of poverty. The program offers children experiences that develop the attitudes, skills, and knowledge necessary for later school success with a special emphasis on children’s language and literacy skills. *Curiosity Corner* comprises two sets of 38 weekly thematic units,

one for three-year-olds and one for four-year-olds. Each day the program staff present children with learning experiences through sequential daily activities. The program provides training, support, and teaching materials for teaching staff and administrators. Parents are encouraged to participate in children’s learning through activities both inside and outside the classroom.

Research One study of *Curiosity Corner* met the What Works Clearinghouse (WWC) evidence standards with reservations.¹ The study included 316 three- and four-year-old children from four urban, high poverty school districts in New Jersey. This report focuses on immediate posttest findings to determine the effectiveness of

the intervention.² The WWC considers the extent of evidence for *Curiosity Corner* to be small for oral language and for cognition. No studies that met WWC evidence standards with or without reservations addressed print knowledge, phonological processing, early reading/writing, or math.

Effectiveness *Curiosity Corner* was found to have no discernible effects on oral language and cognition.

	Oral language	Print knowledge	Phonological processing	Early reading/writing	Cognition	Math
Rating of effectiveness	No discernible effects	na	na	na	No discernible effects	na

(continued)

1. To be eligible for the WWC’s review, the Early Childhood Education (ECE) intervention had to be implemented in English, in center-based settings (private child care center, preschools located in public schools, Head Start, or other center-based preschool setting), with children aged three to five or in preschool.
2. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available. *Curiosity Corner* is being studied under the Preschool Curriculum Evaluation Research (PCER) Grants administered through the U.S. Department of Education’s Institute for Education Sciences. The final PCER reports were not released in time to be reviewed for this report.

Effectiveness *(continued)*

	<i>Oral language</i>	<i>Print knowledge</i>	<i>Phonological processing</i>	<i>Early reading/writing</i>	<i>Cognition</i>	<i>Math</i>
Improvement index³	Average: +9 percentile points Range: +1 to +17 percentile points	na	na	na	Average: -7 percentile points	na

na = not applicable

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.net/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. Typically, the program has a teacher and an assistant assigned to a class of 15 children. Additional teaching staff are required if some children need special care or have special needs. The teacher’s manual and weekly theme guides provide teachers with detailed instructions for the lessons. The program also includes supplies for the instructional activities (themed children’s books, manipulatives, and games). Teachers are trained through 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 are conducted in a sequential order to provide children with active learning experiences, include Greetings and Readings, Clues and Questions, Rhyme Time, Learning Labs, Story Tree, Outside/Gross Motor Play, Snack Time, and Question/Reflection. Although *Curiosity Corner* is designed to enhance the development of the whole child, it emphasizes children’s language and early literacy skills. Parents are encouraged to actively engage in children’s learning 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.

Professional development is provided by the Success for All Foundation staff. The first year of professional development includes an initial two-day training, additional training sessions and ongoing implementation visits, and training at a fall conference for the *Curiosity Corner* Coaches and Facilitators. The second year of professional development includes a day of refresher training, subsequent training sessions and ongoing implementation visits, and training available at experienced sites and conferences for *Curiosity Corner* Coaches.

Cost

Teaching materials for *Curiosity Corner* cannot be purchased without participation in training and other professional development activities. The teaching materials cost \$2,825 per class and

3. These numbers show the average and range of student-level improvement indices for all findings across the study.

Additional program information *(continued)*

come with a teacher's manual, 38 weekly theme guides, 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 were not available.

Research

One study reviewed by the WWC investigated the effects of *Curiosity Corner* in a center-based setting. The study (Chambers, Chamberlain, Hurley, & Slavin, 2001) was a quasi-experimental design that met WWC evidence standards with reservations. The study included 316 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. The authors compared oral language and cognitive outcomes for children in a *Curiosity Corner* intervention group with 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 moderate 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.⁴

The WWC considers the extent of evidence for *Curiosity Corner* to be small for oral language and for cognition. No studies that met WWC evidence standards with or without reservations addressed print knowledge, phonological processing, early reading/writing, or math.

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/writing, cognition, and math. Chambers et al. (2001) addressed outcomes in the oral language and cognition outcome domains. The findings below present the authors' and the WWC-calculated estimates of the size and statistical significance of the effects of *Curiosity Corner* on children's performance.⁵

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 differences between the intervention

and comparison groups were not statistically significant for either outcome as calculated by the WWC; the average effect was neither statistically significant nor large enough to be considered substantively important according to WWC criteria (that is, at least 0.25). In the oral language domain, this study showed no discernible effects, according to WWC criteria.

Cognition. Chambers et al. (2001) analyzed the differences between the *Curiosity Corner* and comparison groups for one measure (MSEL Visual Reception scale) in this outcome domain. The difference between the intervention and comparison groups was not statistically significant or large enough to be considered substantively important as calculated by the WWC (that is, at least 0.25). In the cognition domain, this study showed no discernible effects, according to WWC criteria.

4. 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 sizes of studies. Additional factors associated with a related concept, external validity, such as children's demographics and the types of settings in which studies took place, are not taken into account for the categorization.

5. 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 about the clustering correction, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate the statistical significance. In the case of *Curiosity Corner*, a correction for clustering was needed.

Effectiveness *(continued)*

The WWC found *Curiosity Corner* to have no discernible effects for oral language and cognition

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

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

research design, the statistical significance of the findings,⁵ 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](#)).

–50 and +50, with positive numbers denoting results favorable to the intervention group.

The average improvement index for oral language is +9 percentile points in the study, with a range of +1 to +17 percentile points across findings. The improvement index for cognition is –7 percentile points for the one outcome in the study.

Summary

The WWC reviewed one study on *Curiosity Corner* and it met WWC evidence standards with reservations. Based on this single study, the WWC found no discernible effects for oral language or cognition. The evidence presented in this report may change as new research emerges.

Reference

Met WWC evidence standards with reservations

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

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

Appendix

Appendix A1 Study characteristics: Chambers, Chamberlain, Hurley, and Slavin, 2001 (quasi-experimental design)

Characteristic	Description
Study citation	Chambers, B., Chamberlain, A., Hurley, E. A., & Slavin, R. E. (2001, April). <i>Curiosity Corner: Enhancing preschoolers' language abilities through comprehensive reform</i> . Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA.
Participants	The study began with 448 low-income preschool children who ranged in age from two years, seven months to four years, eleven months. ¹ At posttest, 316 children were included in the study with analysis samples ranging from 311 to 315. The three-year-olds were from private early childhood centers (N = 169) and the four-year-olds were from public preschools (N = 147). The final sample included 68% African-American children, 16% Caucasian children, and 11% Hispanic children; 49% of the sample were female. Eight preschools ² (public and private) were assigned to the <i>Curiosity Corner</i> intervention group and eight preschools (public and private) matched on demographic characteristics were used as the comparison group.
Setting	The study took place in 16 preschools (a mix of public and private) in four high poverty, urban school districts in New Jersey.
Intervention	The intervention group children participated in <i>Curiosity Corner</i> . Information on duration, frequency, and intensity of implementation was not reported.
Comparison	The comparison group children participated in the regular early childhood curriculum at their preschool centers.
Primary outcomes and measurement	The primary outcome domains were children's oral language and cognition. The study used three subtests of a standardized test (the Mullen Scales of Early Learning, American Guidance Services Edition): expressive language, receptive language, and visual reception. The study also used the Early Childhood Environment Rating Scale-Revised (ECERS-R) to evaluate classroom quality, but the measure is not included in this WWC review because it is not relevant to the topic review (see Appendices A2.1 and A2.2 for more detailed descriptions of outcome measures). ³
Teacher training	The program provided teachers with detailed instructions for the lessons in the Teacher's Manual, as well as the materials needed for the instructional activities. Teachers, teaching assistants, and administrators were trained in two-day initial training sessions, followed by six in-class visits by a Success for All Foundation (SFA) trainer. In addition, teachers were observed, mentored, and supported by <i>Curiosity Corner</i> coaches from the school districts. The coaches were trained by SFA staff over a two-year period as described in the intervention report. The coaches offered workshops to help teachers implement the curriculum.

1. Information on total sample size was provided by the study authors upon WWC request.
2. Information on the number of schools in each condition was provided by the study authors upon WWC request.
3. For further details about the outcomes included in the early childhood education topic review please see the [Early Childhood Education Protocol](#).

Appendix A2.1 Outcome measures in the oral language domain

Characteristic	Description
Mullen Scales of Early Learning (MSEL) Expressive Language scale	A scale from a standardized measure of children's expressive language skills such as speaking and forming language (as cited in Chambers et al., 2001).
MSEL Receptive Language scale	A scale from a standardized measure of children's receptive language skills such as auditory organization, sequencing, and use of spatial concepts (as cited in Chambers et al., 2001).

Appendix A2.2 Outcome measures in the cognition domain

Characteristic	Description
MSEL Visual Reception scale	A scale from a standardized measure of children's cognitive ability to process visual patterns (as cited in Chambers et al., 2001).

Appendix A3.1 Summary of study findings included in the rating for the oral language domain¹

Outcome measure	Study sample	Sample size (schools/ children)	Authors' findings from the study		WWC calculations			
			Mean outcome (standard deviation ²)		Mean difference ⁴ (<i>Curiosity Corner</i> – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
			<i>Curiosity Corner</i> group ³	Comparison group ³				
Chambers et al., 2001 (quasi-experimental design)⁸								
MSEL Expressive Language scale	3–4 year olds	16/313	39.49 (5.48)	37.16 (5.31)	2.33	0.43	ns	+17
MSEL Receptive Language scale	3–4 year olds	16/315	37.70 (5.27)	37.63 (5.15)	0.07	0.01	ns	+1
Domain average⁹ for oral language						0.22	ns	+9

ns = not statistically significant

MSEL = Mullen Scales of Early Learning

1. This appendix reports findings considered for the effectiveness rating and the average improvement indices. Subgroup findings from the same studies are not included in these ratings, but are reported in Appendix A4.1.
2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are; a smaller standard deviation on a given measure would indicate that participants had more similar outcomes. The standard deviations were provided by the study authors upon WWC request.
3. The posttest means are covariate-adjusted means provided by the study authors upon WWC request. The study authors included age and PPVT-III scores at pretest as covariates in the analysis.
4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
5. For an explanation of the effect size calculation, see [Technical Details of WWC-Conducted Computations](#).
6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
7. 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. The improvement index can take on values between –50 and +50, with positive numbers denoting results favorable to the intervention group.
8. 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 about the clustering correction, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate statistical significance. In the case of Chambers et al. (2001), a correction for clustering was needed, so the significance levels may differ from those found by the study authors.
9. This row provides the study average, which, in this instance, is also the domain average. The WWC-computed domain average effect size is a simple average rounded to two decimal places. The domain improvement index is calculated from the average effect size.

Appendix A3.2 Summary of study findings included in the rating for the cognition domain¹

Outcome measure	Study sample	Sample size (schools/ children)	Authors' findings from the study		WWC calculations			
			Mean outcome (standard deviation ²)		Mean difference ⁴ (<i>Curiosity Corner</i> – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
			<i>Curiosity Corner</i> group ³	Comparison group ³				
Chambers et al., 2001 (quasi-experimental design)⁸								
MSEL Visual Reception scale	3–4 year olds	16/311	42.19 (3.97)	42.88 (3.97)	–0.69	–0.17	ns	–7
Domain average⁹ for cognition						–0.17	ns	–7

ns = not statistically significant

MSEL = Mullen Scales of Early Learning

1. This appendix reports findings considered for the effectiveness rating and the average improvement indices. Subgroup findings from the same studies are not included in these ratings, but are reported in Appendix A4.2.
2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are; a smaller standard deviation on a given measure would indicate that participants had more similar outcomes. The standard deviations were provided by the study authors upon WWC request.
3. The posttest means are covariate-adjusted means provided by the study authors upon WWC request. The study authors included age and PPVT-III scores at pretest as covariates in the analysis.
4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
5. For an explanation of the effect size calculation, see [Technical Details of WWC-Conducted Computations](#).
6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
7. 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. The improvement index can take on values between –50 and +50, with positive numbers denoting results favorable to the intervention group.
8. 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 about the clustering correction, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate statistical significance. In the case of Chambers et al. (2001), a correction for clustering was needed, so the significance levels may differ from those found by the study authors.
9. This row provides the study average, which, in this instance, is also the domain average. The WWC-computed domain average effect size is a simple average rounded to two decimal places. The domain improvement index is calculated from the average effect size.

Appendix A4.1 Summary of subgroup findings for the oral language domain¹

Outcome measure	Study sample	Sample size (schools/ children)	Authors' findings from the study		WWC calculations				
			Mean outcome (standard deviation ²)		Mean difference ³ (Curiosity Corner – comparison)	Effect size ⁴	Statistical significance ⁵ (at $\alpha = 0.05$)	Improvement index ⁶	
			Curiosity Corner group	Comparison group					
Chambers et al., 2001 (quasi-experimental design; 3 year olds)⁷									
MSEL Expressive Language scale	3 year olds	16/167	39.26 (5.04)	37.54 (4.30)	1.72	0.36	ns	+14	
MSEL Receptive Language scale	3 year olds	16/168	37.76 (4.40)	37.52 (4.68)	0.24	0.05	ns	+2	
Chambers et al., 2001 (quasi-experimental design; 4 year olds)⁷									
MSEL Expressive Language scale	4 year olds	12/146 ⁸	43.58 (4.55)	43.29 (4.01)	0.29	0.07	ns	+3	
MSEL Receptive Language scale	4 year olds	12/147 ⁸	43.10 (4.32)	42.85 (3.75)	0.25	0.06	ns	+2	

ns = not statistically significant

MSEL = Mullen Scales of Early Learning

1. This appendix presents subgroup findings for measures that fall in the oral language domain. Total group scores were used for rating purposes and are presented in Appendix A3.1.
2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are; a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
3. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group. The study authors included age and PPVT-III scores at pretest as covariates in the analysis.
4. For an explanation of the effect size calculation, see [Technical Details of WWC-Conducted Computations](#).
5. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
6. 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. The improvement index can take on values between -50 and +50, with positive numbers denoting results favorable to the intervention group.
7. 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 (corrections for multiple comparisons were not done for findings not included in the overall intervention rating). For an explanation about the clustering correction, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate statistical significance. In the case of Chambers et al. (2001), a correction for clustering was needed, so the significance levels may differ from those reported in the original study.
8. The sample size for the comparison group reported in the original study was incorrect and the correct sample size was provided by the study authors.

Appendix A4.2 Summary of subgroup findings for the cognition domain¹

Outcome measure	Study sample	Sample size (schools/ children)	Authors' findings from the study		WWC calculations			
			Mean outcome (standard deviation ²)		Mean difference ³ (<i>Curiosity Corner</i> – comparison)	Effect size ⁴	Statistical significance ⁵ (at $\alpha = 0.05$)	Improvement index ⁶
			<i>Curiosity Corner</i> group	Comparison group				
Chambers et al., 2001 (quasi-experimental design; 3 year olds)⁷								
MSEL Visual Reception scale	3 year olds	16/165	42.32 (3.54)	42.66 (4.04)	-0.34	-0.09	ns	-4
Chambers et al., 2001 (quasi-experimental design; 4 year olds)⁷								
MSEL Visual Reception scale	4 year olds	12/146 ⁸	45.49 (3.20)	45.61 (3.20)	-0.12	-0.04	ns	-1

ns = not statistically significant

MSEL = Mullen Scales of Early Learning

1. This appendix presents subgroup findings for measures that fall in the cognition domain. Total group scores were used for rating purposes and are presented in Appendix A3.2.
2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are; a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
3. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group. The study authors included age and PPVT-III scores at pretest as covariates in the analysis.
4. For an explanation of effect size calculation, see [Technical Details of WWC-Conducted Computations](#).
5. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
6. 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. The improvement index can take on values between -50 and +50, with positive numbers denoting results favorable to the intervention group.
7. 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 (corrections for multiple comparisons were not done for findings not included in the overall intervention rating). For an explanation about the clustering correction, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate statistical significance. In the case of Chambers et al. (2001), a correction for clustering was needed, so the significance levels may differ from those reported in the original study.
8. The sample size for the comparison group reported in the original study was incorrect and the correct sample size was provided by the study authors.

Appendix A5.1 *Curiosity Corner* rating for the oral language domain

The WWC rates an intervention's effects in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.¹

For the outcome domain of oral language, the WWC rated *Curiosity Corner* as having no discernible effects. It did not meet the criteria for positive effects, potentially positive effects, mixed effects, potentially negative effects, or negative effects because no studies showed statistically significant or substantively important effects, either positive or negative.

Rating received

No discernible effects: No affirmative evidence of effects.

- Criterion 1: None of the studies shows a statistically significant or substantively important effect, either *positive* or *negative*.

Met. The study did not show statistically significant or substantively important effects, either positive or negative.

Other ratings considered

Positive effects: Strong evidence of a positive effect with no overriding contrary evidence.

- Criterion 1: Two or more studies showing statistically significant *positive* effects, at least one of which met WWC evidence standards for a strong design.

Not met. Only one study examined effects on oral language.

AND

- Criterion 2: No studies showing statistically significant or substantively important *negative* effects.

Met. The study did not show statistically significant or substantively important negative effects.

Potentially positive effects: Evidence of a positive effect with no overriding contrary evidence.

- Criterion 1: At least one study showing a statistically significant or substantively important *positive* effect.

Not met. The study did not show statistically significant or substantively important positive effects.

AND

- Criterion 2: No studies showing a statistically significant or substantively important *negative* effect and fewer or the same number of studies showing *indeterminate* effects than showing statistically significant or substantively important *positive* effects.

Not met. The study did not show statistically significant or substantively important effects, either positive or negative.

Mixed effects: Evidence of inconsistent effects as demonstrated through either of the following criteria.

- Criterion 1: At least one study showing a statistically significant or substantively important *positive* effect, and at least one study showing a statistically significant or substantively important *negative* effect, but no more such studies than the number showing a statistically significant or substantively important *positive* effect.

Not met. The study did not show statistically significant or substantively important effects, either positive or negative.

OR

- Criterion 2: At least one study showing a statistically significant or substantively important effect, and more studies showing an *indeterminate* effect than showing a statistically significant or substantively important effect.

Not met. The study did not show statistically significant or substantively important effects, either positive or negative.

(continued)

Appendix A5.1 *Curiosity Corner* rating for the oral language domain (continued)

Potentially negative effects: Evidence of a negative effect with no overriding contrary evidence

- Criterion 1: At least one study showing a statistically significant or substantively important *negative* effect.

Not met. The study did not show statistically significant or substantively important negative effects.

AND

- Criterion 2: No studies showing a statistically significant or substantively important *positive* effect, or more studies showing statistically significant or substantively important *negative* effects than showing statistically significant or substantively important *positive* effects.

Met. The study did not show statistically significant or substantively important positive effects.

Negative effects: Strong evidence of a negative effect with no overriding contrary evidence.

- Criterion 1: Two or more studies showing statistically significant *negative* effects, at least one of which met WWC evidence standards for a strong design.

Not met. Only one study examined effects on oral language.

AND

- Criterion 2: No studies showing statistically significant or substantively important *positive* effects.

Met. The study did not show statistically significant or substantively important positive effects.

1. For rating purposes, the WWC considers the statistical significance of individual outcomes and the domain-level effect. The WWC also considers the size of the domain-level effect for ratings of potentially positive or potentially negative effects. See the [WWC Intervention Rating Scheme](#) for a complete description.

Appendix A5.2 *Curiosity Corner* rating for the cognition domain

The WWC rates an intervention's effects in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.¹

For the outcome domain of cognition, the WWC rated *Curiosity Corner* as having no discernible effects. It did not meet the criteria for positive effects, potentially positive effects, mixed effects, potentially negative effects, or negative effects because no studies showed statistically significant or substantively important effects, either positive or negative.

Rating received

No discernible effects: No affirmative evidence of effects.

- Criterion 1: None of the studies shows a statistically significant or substantively important effect, either *positive* or *negative*.

Met. The study did not show statistically significant or substantively important effects, either positive or negative.

Other ratings considered

Positive effects: Strong evidence of a positive effect with no overriding contrary evidence.

- Criterion 1: Two or more studies showing statistically significant *positive* effects, at least one of which met WWC evidence standards for a strong design.

Not met. Only one study examined effects on cognition.

AND

- Criterion 2: No studies showing statistically significant or substantively important *negative* effects.

Met. The study did not show statistically significant or substantively important negative effects.

Potentially positive effects: Evidence of a positive effect with no overriding contrary evidence.

- Criterion 1: At least one study showing a statistically significant or substantively important *positive* effect.

Not met. The study did not show statistically significant or substantively important positive effects.

AND

- Criterion 2: No studies showing a statistically significant or substantively important *negative* effect and fewer or the same number of studies showing *indeterminate* effects than showing statistically significant or substantively important *positive* effects.

Not met. The study did not show statistically significant or substantively important effects, either positive or negative.

Mixed effects: Evidence of inconsistent effects as demonstrated through either of the following criteria.

- Criterion 1: At least one study showing a statistically significant or substantively important *positive* effect, and at least one study showing a statistically significant or substantively important *negative* effect, but no more such studies than the number showing a statistically significant or substantively important *positive* effect.

Not met. The study did not show statistically significant or substantively important effects, either positive or negative.

OR

- Criterion 2: At least one study showing a statistically significant or substantively important effect, and more studies showing an *indeterminate* effect than showing a statistically significant or substantively important effect.

Not met. The study did not show statistically significant or substantively important effects, either positive or negative.

(continued)

Appendix A5.2 Curiosity Corner rating for the cognition domain (continued)

Potentially negative effects: Evidence of a negative effect with no overriding contrary evidence

- Criterion 1: At least one study showing a statistically significant or substantively important *negative* effect.

Not met. The study did not show statistically significant or substantively important negative effects.

AND

- Criterion 2: No studies showing a statistically significant or substantively important *positive* effect, or more studies showing statistically significant or substantively important *negative* effects than showing statistically significant or substantively important *positive* effects.

Met. The study did not show statistically significant or substantively important positive effects.

Negative effects: Strong evidence of a negative effect with no overriding contrary evidence.

- Criterion 1: Two or more studies showing statistically significant *negative* effects, at least one of which met WWC evidence standards for a strong design.

Not met. Only one study examined effects on cognition.

AND

- Criterion 2: No studies showing statistically significant or substantively important *positive* effects.

Met. The study did not show statistically significant or substantively important positive effects.

1. For rating purposes, the WWC considers the statistical significance of individual outcomes and the domain-level effect. The WWC also considers the size of the domain-level effect for ratings of potentially positive or potentially negative effects. See the [WWC Intervention Rating Scheme](#) for a complete description.

Appendix A6 Extent of evidence by domain

Outcome domain	Number of studies	Sample size		Extent of evidence ¹
		Centers	Children	
Oral language	1	16	316	Small
Print knowledge	0	0	0	na
Phonological processing	0	0	0	na
Early reading/writing	0	0	0	na
Cognition	1	16	316	Small
Math	0	0	0	na

na = not applicable/not studied

1. A rating of “moderate to large” requires at least two studies and two schools across studies in one domain and a total sample size across studies of at least 350 students or 14 classrooms. Otherwise, the rating is “small.”