The NYC Core Knowledge
Early Literacy Pilot
K - Grade 2 Results
What is Core Knowledge?

- Founded in 1986 by E.D. Hirsch, Jr.
- An education reform movement based on a powerful idea
- A research-based curriculum
- Supports a nationwide network of Core Knowledge Schools

The Big Idea: Broad Background Knowledge is Essential to Reading Comprehension!
What is Core Knowledge Language Arts (CKLA)?

A literacy initiative, launched in 2007, with two Strands of Instruction

**Strand : Skills**

- Explicit phonics instruction in “decoding” (reading) and “encoding” (writing)
- Spelling
- Grammar
- Writing
What is Core Knowledge Language Arts (CKLA)?

**Strand: Listening and Learning**

- Content-rich read-alouds focused on a specific topic to build knowledge, vocabulary, and (listening) comprehension

- Discussion and extension activities foster oral language development.
How CKLA Differs From Traditional Approaches to Literacy

- Teaches the mechanics of reading while simultaneously building background knowledge essential to language growth and comprehension.

- CKLA puts coherent content at the heart of literacy instruction.

Most reading programs treat reading comprehension as a “skill” that can be applied to any subject.
New York City Pilot

- Three year trial of CKLA in K-2, starting in the 2008-2009 school year
- CKLA introduced in 10 low-income New York City Schools
- Results compared to 10 demographically matched schools
**Demographics:** While the comparison schools for the evaluation were initially picked for their similarities to the pilot schools, analyses control for demographics to account for any demographic differences that have emerged over the past two years.

* N = the number of students for whom both fall and spring data were available for any WJ test.

A random sample of half of the students in the comparison schools were selected for testing. All students in CKLA schools were tested.

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Analyses in all slides exclude students with disabilities. Data from 08-09 was used to select comparison schools (data presented here are from the 2010-11 school year). * Difference between CKLA and Control groups statistically significant. ** ELA percents based on total number of students who took the exams in the schools in this evaluation.
Focus of the Evaluation

**Hypothesis:** Students taught with the Core Knowledge Language Arts (CKLA) Program will gain reading competencies and content knowledge (science and social studies skills) at a faster rate than their peers.

**Methodology:** A multi-method, longitudinal research design

**PROGRAM YEAR 3: 2ND GRADE**

Assessments of 2nd Grade Students (at 10 CKLA schools & 10 comparison schools):

- Pre- and post-test of literacy skills
- Tests of science and social studies skills at the end of the year
- Additional test of content-specific literacy skills (the Core Knowledge Assessment for CKLA students only) at the end of the year

Teacher and Administrator Surveys (at 10 CKLA schools):

- Assesses satisfaction with and impact of CKLA

Case studies (at 4 CKLA schools):

- Classroom observations, administrator & teacher interviews

**ADDITIONAL GRADE LEVELS**

Assessments of Kindergarten and 1st Grade Students** (at 9 CKLA schools & 9 comparison schools)

- Tests of literacy, science and social studies skills at end of the third year
Executive Summary – Quantitative Analysis

Core Knowledge Language Arts (CKLA) students had significantly greater gains in Year 3 than comparison school students on nearly all measures.

- **Overall Achievement**
  - Spring scores for 2nd grade CKLA students were greater than that of comparison students on all tests.*

- **High vs. Low Performers**
  - The CKLA intervention had an impact for all students, regardless of their incoming fall reading scores, but the effects were strongest for students with lower incoming scores.

- **CKLA Program Exposure**
  - Students new to the CKLA program this year (who also had lower incoming fall scores) displayed greater increases on the WJ Brief Reading than those who had been in the program longer. CKLA students who had been in the program for multiple years displayed the highest spring scores.

- **Post- Pilot CKLA Participation**
  - CKLA Kindergarten and 1st grade classes implementing the CKLA program this year scored significantly higher than comparison schools in the spring on TerraNova Reading.

*All differences were statistically significant except TerraNova Reading.
Executive Summary – Surveys & Site Visits

- **Surveys**
  - The teacher and administrator surveys indicate high levels of satisfaction with the CKLA Program and a preference for the program over other 2nd grade reading curricula.
  - Most teachers found that students were very engaged with the content of the curriculum and that it was successful at sparking enthusiasm for reading.

- **Site Visits**
  - Fidelity to the program was quite high. The main difficulty noted was in allotting an uninterrupted 60 minutes for program implementation.
  - Most of the observed classrooms fully utilized the materials provided and students were largely attentive during lessons, participated in discussions, and were curious about the content of the materials.
  - In surveys and interviews, teachers noted difficulty with differentiation of instruction using the provided materials for students with special learning needs, such as English Language Learners and Students with Disabilities.
Evaluation of Achievement Gains
Quantitative Results Overview:
CKLA students displayed higher scores and gains on nearly all tests.

<table>
<thead>
<tr>
<th>Test</th>
<th>W-J Brief Reading</th>
<th>Woodcock-Johnson III</th>
<th>TerraNova</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W-J Letter Word Identification</td>
<td>(Basic Reading Skills)</td>
<td></td>
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<td></td>
<td>W-J Passage Comprehension</td>
<td>(Oral Reading Comprehension)</td>
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<td></td>
<td>W-J Word Attack</td>
<td>(Decoding)</td>
<td></td>
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<tr>
<td></td>
<td>W-J Spelling of Sounds</td>
<td>(Written Spelling)</td>
<td></td>
</tr>
<tr>
<td>Spring Scores at CKLA Schools Compared to Comparison Schools</td>
<td>✓</td>
<td>CKLA Significantly Greater Spring Scores</td>
<td>No Significant Difference (But CK students had higher scores)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CKLA Significantly Greater Spring Scores</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>CKLA Significantly Greater Spring Scores</td>
</tr>
<tr>
<td>Change in Fall to Spring Scores at CKLA Schools Compared to Comparison Schools</td>
<td>✓*</td>
<td>CKLA Significantly Greater Fall to Spring Change</td>
<td>Not Administered in Fall</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CKLA Greater Significantly Fall to Spring Change</td>
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<td></td>
<td></td>
<td></td>
<td>CKLA Greater Significantly Fall to Spring Change</td>
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<td></td>
<td></td>
<td></td>
<td>CK Greater Significantly Fall to Spring Change</td>
</tr>
</tbody>
</table>

Note: All analyses control for student demographic characteristics.

*Significant only at one-tailed level. Two-tailed p = .067
Quantitative Results Overview:
CKLA students’ literacy gains were more than double the gains of students at demographically similar comparison schools.

Average Fall-Spring Gain in Scale Score Points
Woodcock-Johnson (Brief Reading Test)

CKLA Students Displayed A Significantly Greater Change From Fall to Spring Than Comparison School Students

(N = 683)  (N = 352)
Impact of time in program: CKLA had the largest impact among students who were new to the program (who had lower starting scores)

However, the highest ultimate (spring) scores were found among those who had been in the program the longest.

Average Fall and Spring Scale Score Points
By Years in CKLA Program in Year 3
Woodcock-Johnson (Brief Reading)

- +0.8 pts
- +2.6 pts
- +3.2 pts

Fall
Spring

1 Year/2nd Grade Only (N=86)
2 Years/1st and 2nd Grade (N=162)
3 Years/All Grades (N=435)
**Impact of time in program:** The longer second grade students had been in the CKLA program, the higher their TerraNova Reading scores were.

**Average Spring Scale Score Points**

*By Years in CKLA Program*

*TerraNova (Reading Test)*

<table>
<thead>
<tr>
<th>Time in Program</th>
<th>Average Score</th>
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<tbody>
<tr>
<td>3 Years/All Grades (N=447)</td>
<td>594</td>
</tr>
<tr>
<td>2 Years/1st and 2nd Grade (N=169)</td>
<td>582</td>
</tr>
<tr>
<td>1 Year/2nd Grade Only (N=129)</td>
<td>577</td>
</tr>
</tbody>
</table>

Scores are not adjusted for demographics.
Effects of CKLA Following Participation in the Pilot: Kindergarten students in schools implementing CKLA showed higher TerraNova Reading spring scores than students in comparison schools in both the year they participated in the pilot and the current year.

Spring Scores
TerraNova Reading Test

CKLA Kindergartners in 2008-2009
Kindergarteners in Year 1

- CKLA Schools (n=693): 510.2
- Comparison Schools (n=307): 501.9

CKLA Kindergartners in 2010-2011
Kindergarteners in Year 3

- CKLA Schools (n=547): 512.2
- Comparison Schools (n=215): 501.7

Scores are not adjusted for demographics.
Effects of CKLA Following Participation in the Pilot: First grade students in schools implementing CKLA showed higher TerraNova Reading spring scores than students in comparison schools in both the year they participated in the pilot and the current year.

Spring Scores
TerraNova Reading Test

CKLA First Graders in 2009-2010
First Graders in Year 2

- CKLA Schools (n=698) = 560.6
- Comparison Schools (n=391) = 555.0

CKLA First Graders in 2010-2011
First Graders in Year 3

- CKLA Schools (n=600) = 557.6
- Comparison Schools (n=223) = 541.0

Scores are not adjusted for demographics.
Next Steps: Year 4

NYCDOE/RPSG’s Year 4 Evaluation

Track student achievement through 3rd grade on the NYS English Language Arts (ELA) test

- Comparison of 3rd grade 2012 NY State ELA test scores among:
  - Students who participated in the CKLA Pilot as second graders in the 2010-2011 vs. students who were assessed at comparison schools in that year.
  - Students who had previously participated in the CKLA Pilot as second graders (one year in the pilot) versus those who had previously participated in the CKLA Pilot for multiple years.

- Exploration of associations between 3rd grade scores on the 2012 NYS ELA test and previous performance on tests of reading comprehension (WJIII, TerraNova) while participating in the pilot as second graders.
Site Visits and Interviews
Measuring fidelity to the CKLA curriculum

- Examining implementation fidelity allows us to better determine:
  1) whether achievement gains can be attributed to the CKLA program
  2) which components of the CKLA program teachers are struggling to implement and those they are implementing successfully

- We took several different approaches to measuring fidelity in the CKLA Pilot schools:
  Site visits with classroom observations
    - Site visits were conducted at 4 randomly selected Pilot schools
    - 11 classrooms were observed
  - Interviews with administrators and teachers
    - Interviews were conducted with 16 teachers and 3 administrators
  - Additional teacher and administrator survey questions
During the site visits, we used a classroom observation protocol developed from the Core Knowledge Language Arts Pilot Observation Form.

Examples from Checklist:

- Check to see that CKLA visuals are posted and that CKLA materials are present and being used effectively.
- Verify that the daily schedule allows for both the Skills and the Listening and Learning Strands to last a full 60 minutes each.
- Whether or not students are familiar with language introduced in the domain.
- Teacher engaging all students in exercises, practice, class discussions, and games.
- Whether or not students are attentive to the teacher during instruction.
- Whether or not students are eager to participate in the daily activities of the program.
- Whether or not students are generally on task and complete assignments in a timely fashion.
- Evidence of differentiated instruction and assessment techniques.

These components were taken from the Core Knowledge Language Arts Pilot Observation Form.

These components were added as additional measures of student engagement.
Nearly all classrooms demonstrated high fidelity to the CKLA program. In particular, we observed high levels of student engagement in lessons.

Number of Classrooms (N=11)

- Teachers have Skills Strand materials posted and used Word Walls effectively: 11 (10 observed, 1 not observed)
- Students are attentive to their teacher during instruction: 10 (9 observed, 1 not observed)
- Small group and/or individual practice time: 9 (8 observed, 1 not observed)
- Students respond appropriately to their teacher’s directions, questions, and assignments: 8 (7 observed, 1 not observed)
- Full 60 minutes is allotted for both the Listening and Learning and Skills Strands*: 10 (9 observed, 1 not observed)

* 60 minutes for the Strands typically not allotted uninterrupted.
Overall, teachers and administrators reported high fidelity to the program. One area where they reported struggling to implement the program was in finding time for daily small group instruction.

<table>
<thead>
<tr>
<th>Fidelity Survey Questions Spring 2011</th>
<th>Teacher Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate your overall level of satisfaction with the CK Reading Curriculum so far.</td>
<td>72.2% Very Satisfied or Somewhat Satisfied</td>
</tr>
<tr>
<td>Typically, I find I have enough time to complete the daily Skills Strand Lesson</td>
<td>81.3% Strongly or Somewhat Agreed</td>
</tr>
<tr>
<td>Typically, I find I have enough time to complete the daily Listening and Learning lesson</td>
<td>75% Strongly or Somewhat Agreed</td>
</tr>
<tr>
<td>Core Knowledge Language Arts engages students and sparks enthusiasm for reading</td>
<td>69.2% Strongly or Somewhat Agreed</td>
</tr>
<tr>
<td>The Skills Strand materials are developmentally appropriate</td>
<td>75% Strongly or Somewhat Agreed</td>
</tr>
<tr>
<td>The Listening and Learning materials are developmentally appropriate</td>
<td>62.5% Strongly or Somewhat Agreed</td>
</tr>
<tr>
<td>The CKLA curriculum accommodates different learning needs</td>
<td>54.5% Strongly or Somewhat Agreed</td>
</tr>
</tbody>
</table>
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For more information, please visit:
http://www.coreknowledge.org/ck-nyc-pilot-results