The Impact of an Early Childhood Education Program on Student Achievement: A Generalizability Study Across Three Decades

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University of Minnesota  HCRC  CPC
Overview

- Introduction
  - Child-Parent Centers and Chicago Longitudinal Study
  - Midwest CPC Expansion
  - Research Question

- Current Study
  - Sample
  - Measures
  - Findings
  - Conclusions & Future Directions
Child-Parent Centers (CPC)
Chicago Longitudinal Study

- Entire cohort of children attending CPC program in PreK beginning at age 3 (1983-84) or age 4 (1984-85) in Chicago (N = 989)
- Comparison group attended all-day K program in 5 randomly selected schools (N = 550)
- 98% African American
- Examined impact of CPC
Midwest CPC Expansion

- USDE Investing in Innovation (i3) Grant Recipient
  - 2012-2016

- PreK-3rd grade program

- Implemented in 4 school districts across MN & IL
  - 25 CPC
  - 21 comparison sites

- Examine the generalizability of CPC program across diverse populations in current historical context
Current Research Question

- Does the present-day implementation of the CPC program show similar effects on student achievement as shown in the Chicago Longitudinal Study?
## CPC P-3 at a Glance

<table>
<thead>
<tr>
<th>CPC P-3 Core Program Elements</th>
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<tbody>
<tr>
<td><strong>Element 1</strong></td>
<td>Effective Learning Experiences</td>
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<td><strong>Element 2</strong></td>
<td>Aligned Curriculum and Practices</td>
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<td><strong>Element 3</strong></td>
<td>Parent Involvement and Engagement</td>
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<td><strong>Element 4</strong></td>
<td>Collaborative Leadership Team</td>
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<td><strong>Element 5</strong></td>
<td>Continuity and Stability from PreK-3rd Grade</td>
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<td><strong>Element 6</strong></td>
<td>Professional Development System</td>
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The present study focuses on the impact of the CPC program as implemented in St. Paul Public Schools.

- 5 CPC schools
- 4 demographically matched comparison sites
Saint Paul Context

- School choice
  - Students are placed at schools based on their choice
  - All preK programs give priority consideration based on income guidelines, home language and special education status
- Limited public preschool options
- 40% mobility from PreK to K
Implementation Fidelity
Years 1-2

- Fall 2012
- Spring 2013
- Fall 2013
- Spring 2014
Outcome Measures

- **Attendance**
  - Percent of days present
  - Chronic absences

- **PreK Achievement**
  - Phonological Awareness Literacy Screening (PALS)
    - Upper Alpha, Lower Alpha
  - Individual Growth Development Indicators (IGDIs)
    - Rhyming, Alliteration

- **Kindergarten Achievement**
  - Mondo Bookshop
  - Text Level
Results: Attendance

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
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<tbody>
<tr>
<td>No CPC</td>
<td>Any CPC</td>
</tr>
<tr>
<td>94%</td>
<td>+98%</td>
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Results: Chronic Absence

![Bar chart showing percentage chronically absent students in Year 1 and Year 2. In Year 1, the percentage for No CPC is 25% and for Any CPC is 30%. In Year 2, the percentage for No CPC is 10% and for Any CPC is 5%.](image)
Findings: Preschool Performance Gains

![Bar chart showing performance gains for different assessments under CPC and No CPC conditions.](chart.png)
Findings: Kindergarten Performance

Met End of Year Benchmark

Percentage met Benchmark:
- No CPC
- Any CPC
- one year CPC
- Two Year CPC

Bar chart showing the percentage of students meeting the end of year benchmark across different CPC categories.
Conclusions

- Examined expansion of CPC in a different context
- Provides preliminary evidence of increase in language skills at the end of PreK
Future Directions

- Examine sub-group differences
  - ELL Status
  - Ethnicity
  - Family Demographics
  - Special Education

- Examine variations in implementation quality by element

- Examine outcomes beyond Kindergarten
Thank you!

Please visit: cpcp3.org to learn more about the Child-Parent Centers or the Human Capital Research Collaborative website hcrc.dev.umn.edu