2021 Annual Community Partners Meeting

February 25, 2021
BIP Lab

Welcome
Today’s Agenda

- What Have We Learned So Far: Completed Projects
- What Are We Doing Right Now: Work in Progress
- What Are We Doing Next: Projects on the Horizon
- What Do We Hope To Do: Projects at the Ideas Stage
- Chat2Learn: A New Resource for Parents
- Q&A
Research Findings: Math for Parents and Children Together (MPACT)

Funded by Overdeck Family Foundation, Heising-Simons Foundation, Robert R. McCormick Foundation, and Paul M. Angell Family Foundation.
What was the goal of MPACT?

Increase preschool-aged children’s math skills and improve parents’ characteristics associated with children’s math skills.
What did we do?

MPACT was a 12-week intervention with 4 treatment arms and a control group. Today we focus on only 2 treatment arms

<table>
<thead>
<tr>
<th>Traditional learning tools:</th>
<th>Tech-based learning tools:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKit – a booklet of math activities for parents to do with their children—plus a game board, game piece, and a Number Helper.</td>
<td>Tablet with math apps.</td>
</tr>
</tbody>
</table>

Outcomes:

W-J math score, parent math anxiety, parent growth mindset, parent time engaged with child in math activities
Mkit and applications on tablets were vetted and piloted

Parents liked the Mkit.

Parents liked the apps.
What did we find? MPACT children’s math scores

Children participating in MPACT score more than a standard deviation below the national mean score. This is equal to about 27 percentile points below the national mean.
## Comparing Tablet and MKit

<table>
<thead>
<tr>
<th>Changed math scores 6 months after end of intervention?</th>
<th>Tablet: Yes - Raised scores by 12% of a SD</th>
<th>MKIT: Yes – raised score by 14% of a SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed parent’s math anxiety?</td>
<td>Tablet: Yes - Increased % going from high to average anxiety by 20% SD</td>
<td>MKIT: No</td>
</tr>
<tr>
<td>Changed parent’s mindset?</td>
<td>Tablet: Yes - Reduced fixed mindset by 28% SD</td>
<td>MKIT: No</td>
</tr>
<tr>
<td>Changed parent’s time in math activities?</td>
<td>Tablet: Yes - Increased time by 27% of SD</td>
<td>MKIT: No</td>
</tr>
<tr>
<td>Changed children’s time in math activities?</td>
<td>Tablet: Yes - Increased time using math apps by .33 SD</td>
<td>MKIT: No</td>
</tr>
<tr>
<td>Changed math score 12 months after end of intervention?</td>
<td>Tablet: Yes - Gains from 6 months are retained (with smaller sample)</td>
<td>MKIT: No – all gains at 6 months are lost</td>
</tr>
</tbody>
</table>
Why did technology work over traditional learning tools?

The tablet and apps overcome many of the barriers to doing math.

- Parents do not have to prepare activities.
- Parents’ anxiety not a factor.
- Child can use app at any time.
- Apps are interactive and fun so there is enthusiasm rather than resistance from children.
- If the Mkit and tablet provide the same amount of math learning per minute, but the tablet is used for more minutes it will increase math skill more.
Research Findings: The COVID-19 Survey

Funded by the Becker Friedman Institute at The University of Chicago
What was the goal of the COVID-19 survey of preschool families and preschool centers?

To understand how families with preschool-aged children in Chicago were impacted by the COVID-19 pandemic and the resulting closure of preschool centers.

To understand how preschool centers were communicating with parents and their efforts to support parents as they cared for their children at home.
Job and Income Loss During COVID-19

• 45% of our sample experienced either job or income loss due to COVID-19
  • 9% of our sample experienced job loss only
  • 21% experienced income loss only
  • 15% experienced both job and income loss
What did we find?

Parents who report both job and income loss suffer the worst mental health effects

<table>
<thead>
<tr>
<th></th>
<th>Stress</th>
<th>Depressive Symptoms</th>
<th>Hopefulness about the Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job + Income Loss</td>
<td>↑</td>
<td>↑</td>
<td>↓</td>
</tr>
<tr>
<td>Income Loss Only</td>
<td>↑</td>
<td>No Δ</td>
<td>No Δ</td>
</tr>
<tr>
<td>Job Loss Only</td>
<td>No Δ</td>
<td>No Δ</td>
<td>No Δ</td>
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Information Mismatch During COVID-19

We asked centers if they provided the following types of information to parents and we asked parents if they received that type of information.

1. How to prevent the spread of the virus
2. How to get meals or groceries
3. How to access internet and technology
4. How to manage finances
5. How to manage stress
6. How to access social services
7. How to find childcare
8. How to help their child continue learning
How many types of information did parents miss?

Frequency of Mismatch

<table>
<thead>
<tr>
<th>Total Mismatches (N= 345)</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>43%</td>
</tr>
<tr>
<td>1</td>
<td>21%</td>
</tr>
<tr>
<td>2</td>
<td>13%</td>
</tr>
<tr>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>5</td>
<td>4%</td>
</tr>
<tr>
<td>6</td>
<td>0%</td>
</tr>
<tr>
<td>7+</td>
<td>1%</td>
</tr>
</tbody>
</table>
Notes: Informational Mismatch is the proportion of parents who claimed they did not receive at least one piece of information from the school that administrators said were sent. Stressed represents people who indicated a stress level of 5 or more on a 10-point scale. Parenting Stress represents people who said that they feel overwhelmed by the responsibility of being a parent. Loneliness represents people who indicated they feel lonely “Often” or “All the time” these days. *, **, and *** indicate a significant difference from those with "No Struggle" at the 0.10, 0.05, and 0.01 levels, respectively.
Work in Progress
Children and Parents Engaged in Reading (CAPER)
Supported by Valhalla Charitable Foundation.

Parents Engaged in Action for Kindergarten Success (PEAKS)
Supported by J-PAL North America.

The Associated Press (AP) American Opinion Poll
Collaboration with the AP, NORC, and the Harris School.
Projects on the Horizon
Early Investments Project
Supported by McCormick Family Foundation.

TalkingPoints: The Messaging Experiment
Supported by TalkingPoints.

TalkingPoints: The Evaluation
Supported by J-PAL North America, Peery Foundation, and Open Road Alliance.
Chat2Learn: A New Resource for Parents
Chat2Learn: A Messaging Program to Promote Children’s Curiosity

In partnership with the Illinois State Board of Education (ISBE).

- Do you think there are more fish in the sea or stars in the sky? Why?
- What does it mean to be a good friend?
- If you had magical powers, how would you use them to help others?
Projects at the Ideas Stage
What We Hope to Do: Projects at the Idea Stage

1. Can educational technology help parents improve their children’s skill?

2. How much does cognitive stress impair decision-making of parents and if so, can we de-stress decision-making?

3. Do cognitive biases interfere with policy makers’ choice of what programs to fund and scale?
Thank you. Please stay in touch!

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