

### Pyramid Model (PM) Intervention

#### Background

- Unaddressed poor social skills can result in substantial negative consequences for students, such as poor academic outcomes<sup>1</sup>; increased discipline referrals, school dropouts and contact with the criminal justice system<sup>2</sup>; and chronic unemployment.<sup>3</sup>
- Pre-K teachers report feeling underprepared to address children’s social emotional needs.<sup>4</sup>
- There is an unmet need for ensuring teachers are equipped to support children’s social-emotional skill development using developmentally appropriate, evidence-based practices.
- The field lacks implementation evidence on how to scale-up and sustain district-wide SEL initiatives to support young children’s social-emotional development.

The **Pyramid Model** is a three-tiered approach that promotes social-emotional competence and addresses challenging behavior of children in preschool classrooms.

- When teachers implement the universal and secondary strategies of the PM, only a small percentage of students are likely to need more intensive supports.<sup>5</sup>



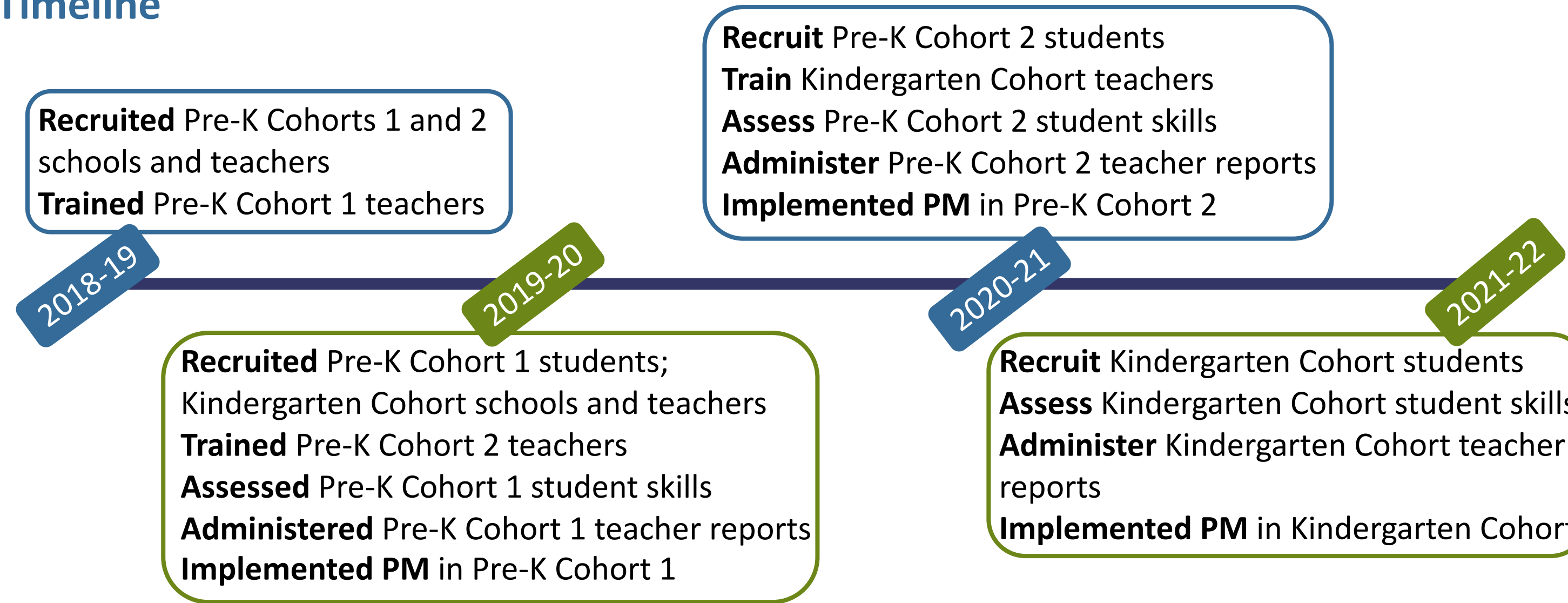
Figure 1. Pyramid Model

### Methods

#### Study Design

- School-level, cluster randomized controlled trial (RCT)
- Schools within each cohort randomized to PM or business-as-usual
- Prior to randomization, schools were stratified by proportion of children of color and SEL approach

#### Timeline



#### Implementation

- Cohorts participate for two years
- Year 1: Teachers in the PM condition participate in a two-day training and receive ongoing biweekly coaching from trained PM coaches and staff.
- Year 2: Teachers in the PM condition receive a one-day booster training and implement the PM with less intensive external supports.

#### Pre-K Cohort 1 Sample (2019-2020)

29 schools in one urban school district  
45 pre-k teachers  
442 pre-k students  
49% female  
38% Dual Language Learner

#### Measures

- Teacher ratings**
- Social Skills Improvement System (SSIS)
  - Academic Rating Scale (ARS)
- Direct assessments**
- Peg Tapping
  - Head Toes Knees Shoulders
  - Challenging Situations Task

#### Full Sample (2019-2022)

68 schools in 1 urban & 1 rural school district  
136 pre-k and K teachers  
1360 pre-k and K students

### Baseline Findings

Table 1. Baseline teacher-reported findings

Variable	N	% skill not yet taught	Mean	SD	Min	Max
<b>Academic Rating Scale</b>						
Language/Literacy	230	48%	1.8	0.74	1.0	4.7
Science	253	43%	2.0	0.93	1.0	5.0
Math	151	66%	1.7	0.70	1.0	4.4

#### Social Skills Improvement System

Variable	N	Mean	SD	Min	Max
Social Skills	438	3.0	0.47	1.7	4.0
Problem Behaviors	439	1.3	0.33	1.0	2.9
Academic Competence	438	2.9	1.19	1.0	5.0

Note: N = 443. ARS is rated from 1 = not yet to 5 = proficient. SSIS SS and PB scales are rated from 1 = never to 4 = almost always. SSIS AC scale is rated from 1 = bottom 10% to 5 = highest 10%.

### Evaluation Considerations

Evaluators must be mindful of a number of challenges to conducting a rigorous RCT of a 2-year program. These include:

**Late Joiners:** Successful PD can require 1 year of teacher training prior to implementation. As a result, students in the study are considered *late joiners* because they are consented one year after teachers join the study and receive PD and coaching.

→ Implications for study design and WWC designation

**Teacher Turnover:** Attrition is expected, but in a 2-year study, some teachers leave after training and before implementation.

→ Implications for attrition, recruitment, and data analysis

**School Randomization:** Randomize at school-level. Teachers who change schools may also change conditions.

→ Implications for fidelity, dosage, resources, and tracking