

# Enhancing the Quality of Instruction in 4-Year-Old Kindergarten

## The Project

### Summary

In this project, the Madison Education Partnership (MEP) brings together Madison Metropolitan School District (MMSD) teachers and Wisconsin Center for Education Research (WCER) researchers to design a course of professional development for 4K teachers. The first phase of the project combines classroom observations with focus groups of teachers to understand current instructional practices and opportunities to improve 4K instruction.

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**In partnership with** the Center for Research on Early Childhood Education (CRECE), Beth Graue, and Katherine Magnuson

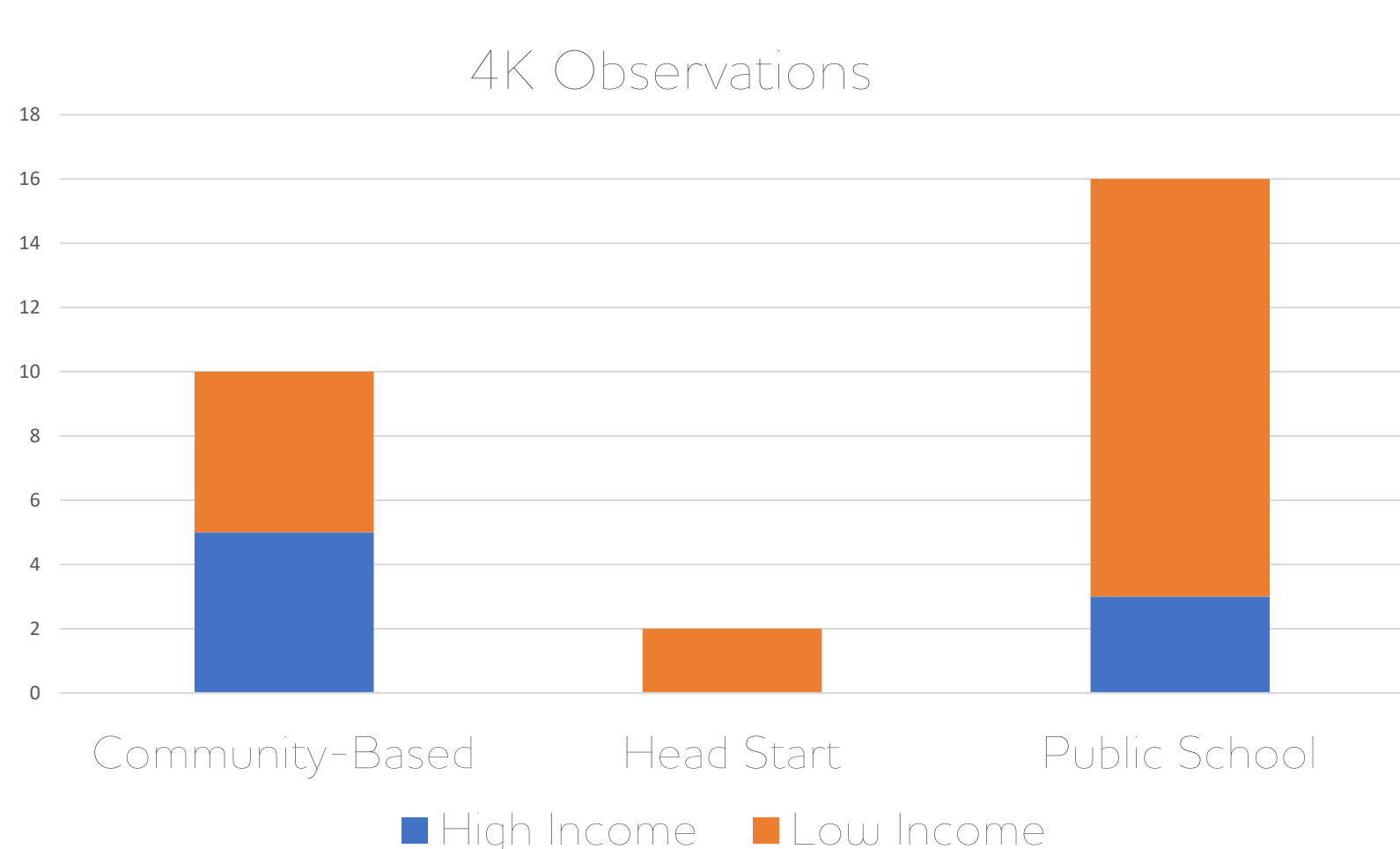
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## Data Collection

- October 2018 – February 2019.
- 28 structured classroom observations during whole group and free playtimes.
- Includes community-based, Head Start, and public school 4K classrooms.
- Four segments of 20 minutes using two tools, with 10-minute segments to rate and add detail:
  - Classroom Assessment Scoring System (CLASS) tool
  - Instructional observation tool developed by Professor Beth Graue.
- Observers spend two to three hours in classrooms.

The chart below shows the breakdown of sites observed by the SES of the families served. (Low Income means 50% or more of children receive free or reduced price lunch.)



## Coding

- Following the semi-structured observation, observers code observational notes using codes for format of instruction, such as "Whole Group" or "Meal," and content of instruction, which includes codes such as "Reading," "Fine Motor," and "Science." See image of tool in the middle column.
- In December 2018, MEP adjusted the coding scheme to more accurately reflect the activities and modes of instruction that researchers observed in 4K classrooms. Some codes were removed, and others were consolidated or added.

## Observational Tools

### CLASS

The Pre-K Classroom Assessment Scoring System (CLASS) is a research-based observation instrument designed to assess the quality of teacher-child interactions. The CLASS categorizes interactions into three domains and each domain is further divided into dimensions (10 total) and indicators (3 or 4 per dimension). Domains include:

- Emotional Support:** The social and emotional learning and relationship development between children and children and adults.
  - Classroom Organization:** The classroom processes related to the management of children's behavior, time, and engagement.
  - Instructional Support:** Teachers' support of cognitive and language development through instructional activities and discussions.
- Classroom quality is rated on a scale of 1-7 for each dimension.

### Semi-Structured

Paired Observation  
Teacher  
Start Time  
Number of Adults

Observer  
End time  
Number of Children

Time	Content	Format	Observation
SNAPSHOT			
Time	Content	Format	Observation

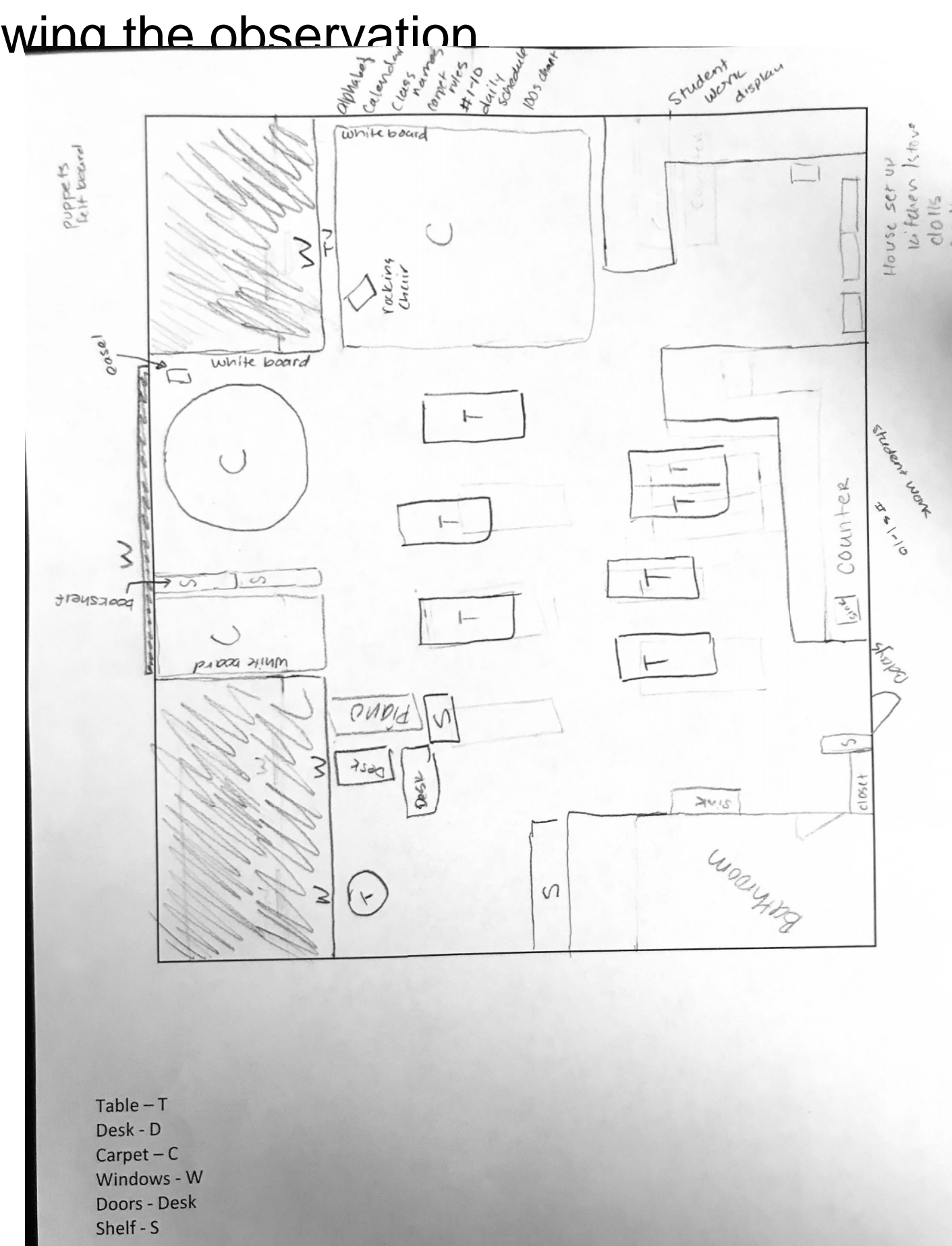
Content: Reading, Language Arts, Oral Language, Math, Science, Social Studies, Arts, Social Emotional Learning, Fine Motor, Gross Motor

Format: Whole Group, Whole Group Teacher, Small Group, Small Group Teacher, Small Group Teacher Center, Small Group Center, Centers, Individual, Transition, Transition with Instruction, Meal, Out, Bathroom

- Complements CLASS by providing detail on instructional practice
- Focuses on content, teachers' roles, and instructional talk through ethnographic field notes.
- First five minutes of three of the four observation segments focus on classroom activity and engagement.
- For next 15 minutes, observers take notes on the lead teacher's activity, use of materials, and instructional content.
- Fourth observation segment focuses on classroom environments, including organization of classroom space and material resources.
- Observers add details to observational notes, including attention to instructional interchanges and content for 10 minutes after observation segments.
- Observers map the classroom's instructional spaces, furniture arrangement, learning materials, accessibility for children, and physical resources.
- Observers take photos of classroom materials and spaces (in the absence of children).



During the observation



## Pairing Observational Tools

The semi-structured observation tool captures nuances in teacher practice that can be obscured by the more standardized and interactional focus of CLASS. Together, these observation tools support richer insight into what is happening instructionally in 4K classrooms and allow us to identify relevant professional development opportunities.

For example, Ms. Clark and Ms. Eddie were observed during free-play in their classrooms, a time when students are typically busy with a range of activities and materials that the teacher has made available. The teachers work with small groups or engage children as they play.

The following are excerpts from semi-structured data.

#### Ms. Clark

The teacher turns back to the puzzles  
T: Almost there. (To another child) you're doing nice work, too. (The teacher looks up at the nearby center and the child gets her attention again.) Two more pieces! A new child arrives to the puzzles and sits down and hesitates to get started. The teacher moves to be down on her level and talks about the other children doing puzzles who could help her.  
T: should we ask one of them? (Without waiting, she goes on to invite L to help her.)  
T: You did it! Congratulations! (turning back to the child who has now completed the puzzle)  
The teacher starts sorting the puzzle pieces, turning them over to see the shape on the back.  
T: We sort them out so we know which is which, alright?  
A child joins the sorting, T points out the shapes on the back  
T: You want all the squares. Those are the pieces that go together.  
C: (engages in sorting) Here are all the squares!

#### Ms. Eddie

T: I'm going to write a letter and then you are. (She draws a single line down higher up on the white board and then points below her line for the child to do the same.)  
T: I'm going to watch you do it (The child approaches and makes his line. The teacher then makes lines across to make an E) A line across here and here and here. You do it. C makes continuous bumps in the middle to the bottom of his line and then at the top to the middle. The teacher continues with the activity, not commenting on the ill-formed letters. She goes through each letter – saying it, writing it, pointing to the board for the child to copy. The child makes the letters, some more accurately than others, with the teacher only prompting the next letter. At the end of the word T points one to one to the letters and asks the child to point to his letters and repeat the names of the letters after her. She tells him he's done and sends him back to his center.  
This takes approximately 2 minutes.  
The teacher repeats this process with approximately 1-2 minutes with each child.

### CLASS:

- Teachers received a 1 (the lowest score) on Concept Development in the instructional support domain.
- Focus: how teacher interaction promotes higher-order thinking & cognition, with attention to understanding
- Professional development based on CLASS: using open-ended questions or discussion strategies.

### Instructional observation:

- Ms. Clark's interactions did not go deep; missed opportunity to support sorting
- Ms. Eddie's rote name-writing activity provided little support of understanding of letter formation, directionality, fine motor skills, and reading.
- Professional development based on instructional observation: math and literacy content knowledge, strategies for play-based instruction, or time management.

The CLASS suggests broad areas of growth, whereas the instructional observation offers more content & instruction detail.

## Looking Ahead

- February 2019: Complete classroom observations.
- February/March 2019: Facilitate six focus groups with 4K teachers to elicit their perspectives on professional development opportunities seen as most helpful for their instructional practice.
- Spring 2019: Analyze observation data and triangulate assertions with teacher focus groups. Identify themes that translate into professional development opportunities
- Summer 2019: Co-design professional development with district teachers and leaders.