WHY CLASS®?

Exploring the Promise of the Classroom Assessment
Scoring System® (CLASS)

TABLE OF CONTENTS

Chapter 1

Brain Development and Pre-Kindergarten: What the Research Shows

A Critical Time for Learning

We are born eager to learn. Research has shown that we acquire 85% of our intellect, personality, and skills by age five.[1]

For too long, pre-K has been considered simply an arbitrary preparation for kindergarten. But the information gathered about children who attend pre-kindergarten versus children who don't tells a different, more compelling story. Pre-kindergarten impacts a child throughout his or her entire school experience, resulting in everything from heightened vocabulary scores to improved attendance and high school graduation rates.
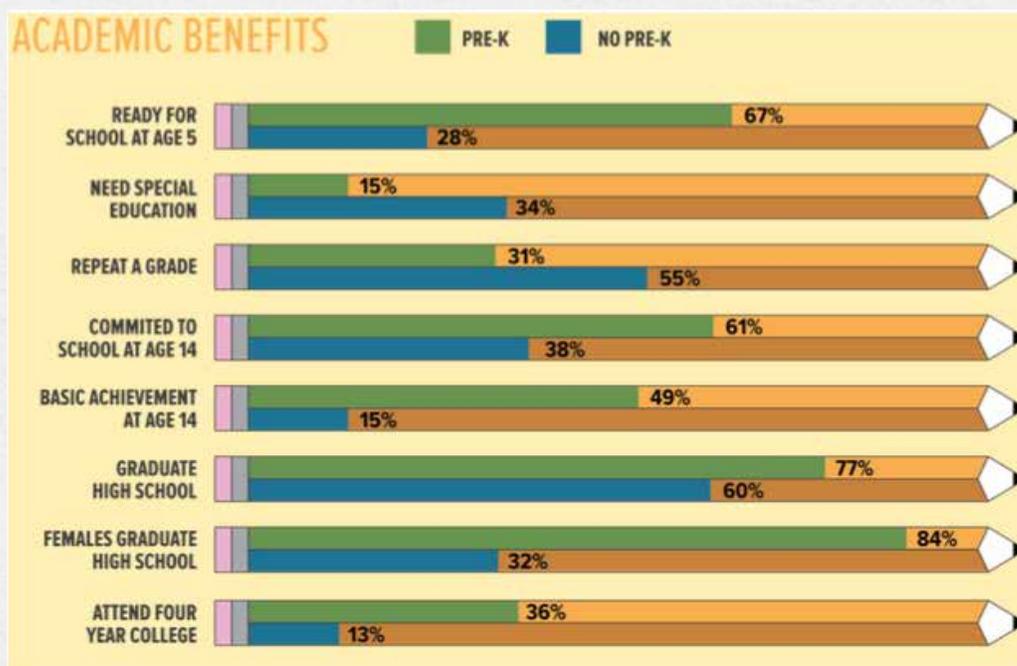
> " Big things start when children are small, and pre-kindergarten is no exception. For every child … overwhelming research supports the importance of building certain critical skills before kindergarten.
> —*Urban Child Institute*

The academic benefits of pre-kindergarten start immediately and last all the way through a child's academic career. Significantly, children who attend preschool are more likely to graduate high school and attend a four-year college.

ACADEMIC BENEFITS ▪ PRE-K ▪ NO PRE-K

	PRE-K	NO PRE-K
READY FOR SCHOOL AT AGE 5	67%	28%
NEED SPECIAL EDUCATION	15%	34%
REPEAT A GRADE	31%	55%
COMMITED TO SCHOOL AT AGE 14	61%	38%
BASIC ACHIEVEMENT AT AGE 14	49%	15%
GRADUATE HIGH SCHOOL	77%	60%
FEMALES GRADUATE HIGH SCHOOL	84%	32%
ATTEND FOUR YEAR COLLEGE	36%	13%

Children who are in pre-K are less likely to drop out early or repeat a grade.[2]

Teachstone CLASS

The Word Gap

After decades of collaborating to increase child language vocabulary, Betty Hart and Todd Risley spent two and a half years intensely observing the language of 42 families throughout Kansas City. Specifically, they looked at household language use in three different settings: 1) professional families; 2) working class families; and 3) welfare families.
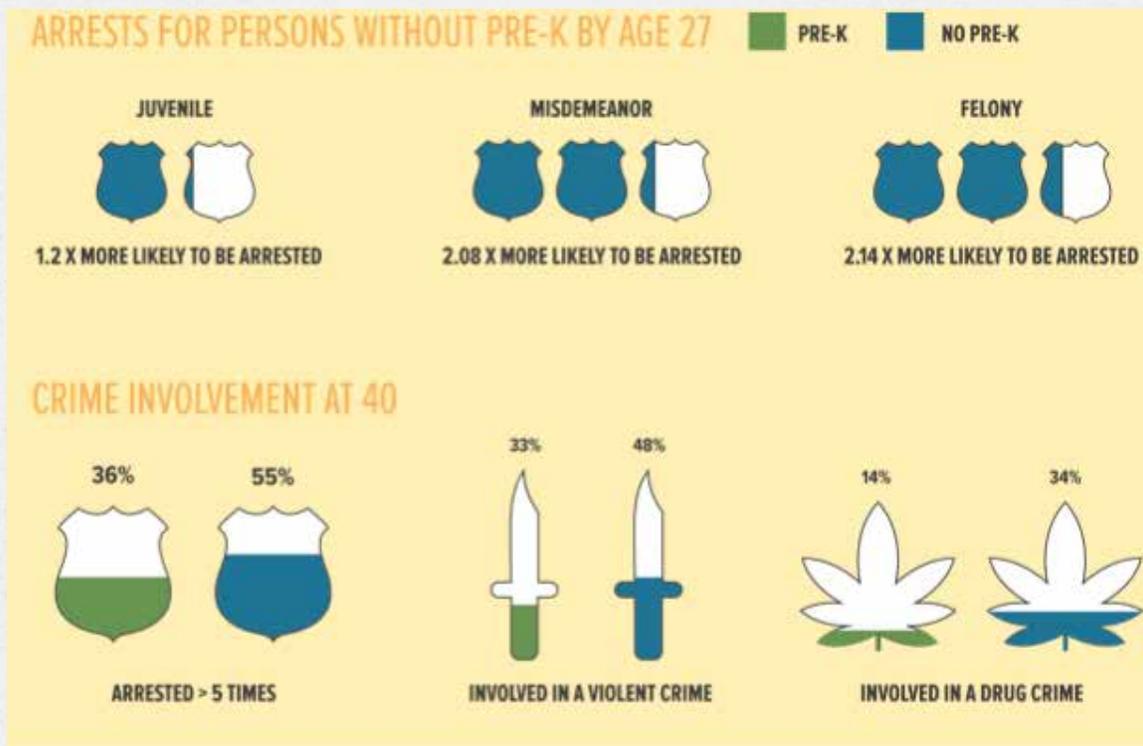
Hart and Risley gathered an enormous amount of data during the study and subsequent longitudinal follow-ups to come up with an often cited 30-million word gap between the vocabularies of of children in welfare and professional families by age three.

	In families receiving federal assistance	In working-class families	In professional families
Cumulative vocabulary by age 3	525 words	740 words	1,116 words

This controversially large number came from the data that showed children from families on welfare heard, on average, **616 words per hour,** while children from professional families (essentially children with college-educated parents) heard **2,153 words per hour.**

There has been a surprising shift in the overall understanding of the benefits of pre-kindergarten in a child's life. Beyond test scores and reading levels comes proof that a pre-k program can impact children in teen and adult years, long after school.

Things like improved family formation, increased number of job hours worked, avoidance both of criminal behavior and reliance on social support, even proof of increased earnings and better health all stem from enrollment in pre-kindergarten.

ARRESTS FOR PERSONS WITHOUT PRE-K BY AGE 27 — PRE-K / NO PRE-K

JUVENILE
1.2 X MORE LIKELY TO BE ARRESTED

MISDEMEANOR
2.08 X MORE LIKELY TO BE ARRESTED

FELONY
2.14 X MORE LIKELY TO BE ARRESTED

CRIME INVOLVEMENT AT 40

36% / 55%
ARRESTED > 5 TIMES

33% / 48%
INVOLVED IN A VIOLENT CRIME

14% / 34%
INVOLVED IN A DRUG CRIME

Children without pre-K education are more likely to be involved with crime later in life.[3]

Teachstone CLASS

> "Research shows that one of the best investments we can make in a child's life is high-quality early education.
> —*President Obama,*
> *State of the Union Address, 2014*

Quality education is good for everyone—it's good for kids, it's good for parents, it's good for communities, and it's essential in building a national commitment to education. But just *what is* quality education?

Researchers have been asking this question for decades. In the next chapters, we'll look at how research has evolved over the past several decades and what we know quality teaching looks like today.

Teachstone CLASS

Chapter 2:

Research Context for the Classroom Assessment Scoring System (CLASS)

Early Preschool Intervention Programs

Back in the '60s, '70s, and '80s, there were a series of very intensive and very successful preschool intervention programs that led to a large expansion of preschool programs. These programs aimed to combat the effects of poverty on children's social and academic development.

In the '80s and '90s, however, concerns started to emerge about the "fade-out" effect—essentially, some studies showed that the powerful early effects of preschool disappeared by third grade. Additionally, there were challenges with taking programs to scale—it was becoming obvious that it wasn't enough to just open more classrooms.

Teachstone ⬛ (CLASS
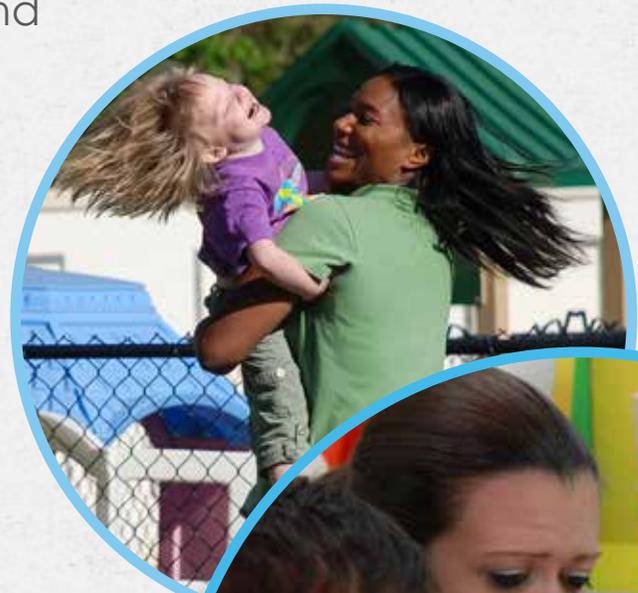
People became more concerned about what went on inside the classrooms and wanted to make sure that programs were providing enriching experiences to children.

There was a policy-driven need to better understand what proximal factors made some programs successful.

Attachment Theory

In the 80s and 90s, we were also increasing our understanding of how relationships and interactions are so critical to child development. Attachment theory emerged as a powerful psychological model for understanding children's relationships with adults, especially primary caregivers like mothers. It showed how these relationships affect how children develop important skills such as emotional control and social skills, and form the basis for future relationships.
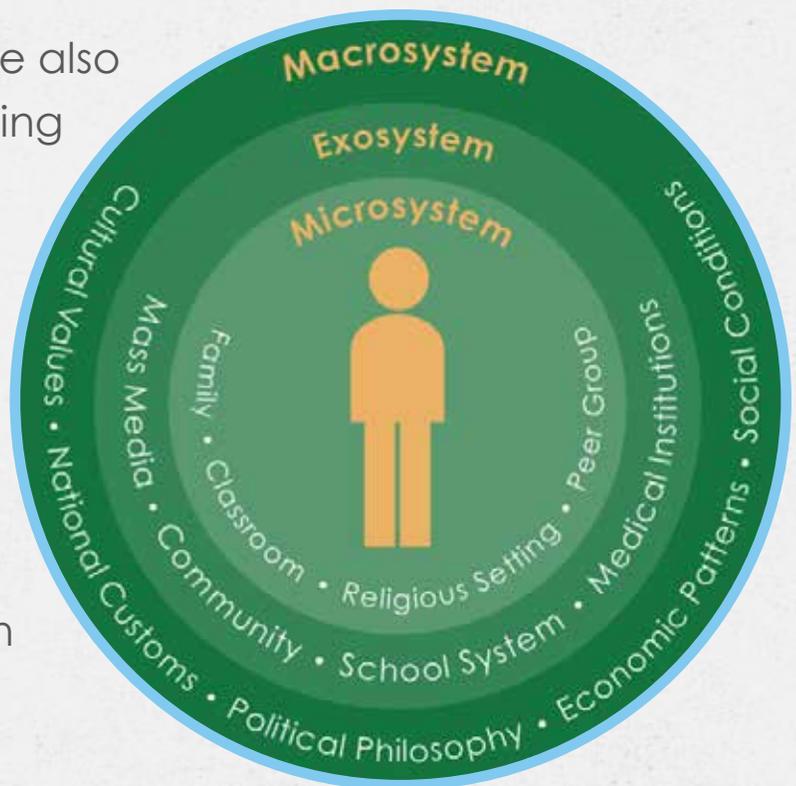
Additionally, there was an increasing understanding of the multiple sources of influence on development. One such critical proximal influence is a child's earliest caregivers and teachers.

Teachstone **CLASS**

NICHD & NCEDL: Studies that Led to Development of the CLASS Measure

A study funded by the National Institute of Child Health and Human Development (NICHD) in the '90s and '00s looked at how child-care experiences affect children. What was unique about this study was that it looked at all aspects of children's environments and social, academic, and self-regulatory outcomes on a very large scale. The researchers examined the same types of things in parent-child interactions as in teacher-child interactions (sensitivity, stimulation, and motivation—words you will hear discussed when talking about the CLASS content). What they found is no surprise—the same things we think of as "good parenting" are also good for children in early childhood care.

That is, the NICHD study demonstrated that "quality of care" influenced children's development in child-care settings (not just the home). Moreover, it defined quality of care much the same way we define quality of parenting (attachment, sensitivity to cues, etc.). Significantly, NICHD showed that the effects of quality extend into elementary grades—higher engagement in more effective classrooms.

A FOUNDATION OF RELATIONSHIPS

" Young children experience the world in the context of relationships. In turn, these relationships influence all areas of development. These relationships also lay the foundation for later developmental outcomes including self confidence, mental health, motivation to learn, achievement in school, and conflict resolution. *—National Scienic Council on the Developing Child*

Following the NICHD study, another study conducted by the National Center for Early Development and Learning (NCEDL) examined the quality of publicly funded preschool programs. In this study, researchers created the first version of the CLASS observation tool from an adaptation of the Classroom Observation System (COS). Using this observation tool, NCEDL researchers measured teacher-student interactions in nearly 700 state-funded preschool programs across 11 states. Just like the NICHD study, researchers observed the quality of classroom interactions and assessed the academic and social development of randomly selected children who attended these programs.

Together, the findings from these and subsequent studies demonstrate the importance of teacher-child interactions. Specifically, the research shows the following:

- Effective teacher-child interactions lead to better cognitive, behavioral, and social outcomes.[4]
- Many pre-K classrooms have low or moderate levels of interactions, suggesting that many children in early childhood programs are not consistently exposed to the types of effective interactions that lead to social and academic gains.[5]
- Small differences in teacher-child interactions are associated with real differences in children's outcomes.[6]
- Carefully designed and implemented professional development supports can improve the quality of teacher-child interactions.[7]

The observation tool that emerged from this body of research—the Classroom Assessment Scoring System (CLASS)—was developed as a way to continue measuring these proximal aspects of teacher-child interactions to better understand what quality is and how it affects learning and growth.

literacy

math

behavior
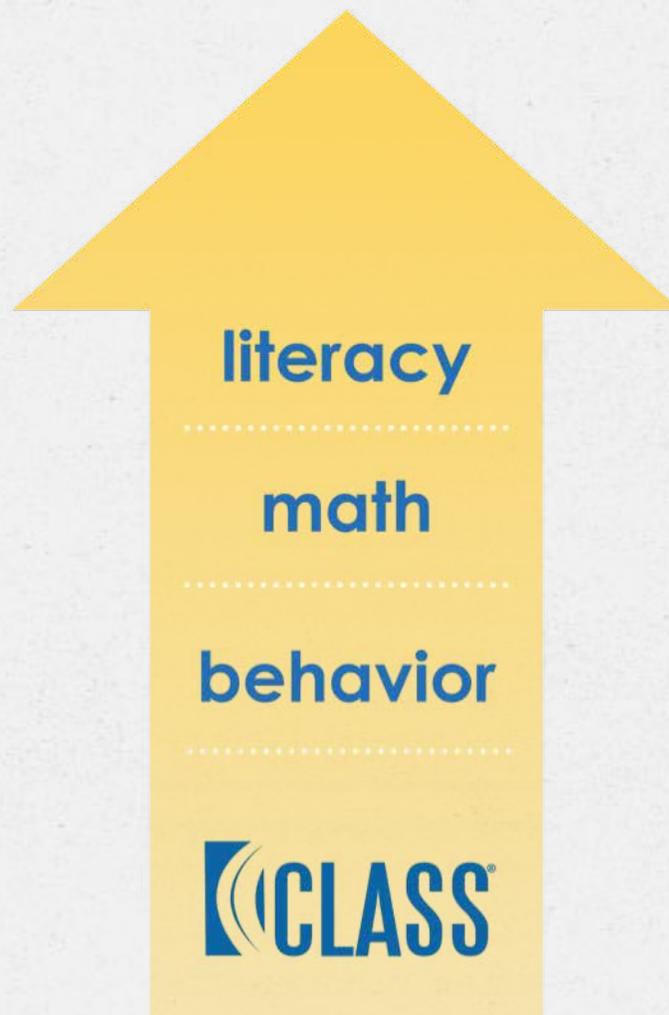
(CLASS

Chapter 3:

What is CLASS?

What is CLASS?

Our understanding of what it means to provide quality teaching has changed quite a bit over the past 25 years. A focus on quality used to mean providing a safe place for children to play with plenty of stimulating materials and books to read. Now that most programs provide these basics in their early childhood classrooms, our focus has shifted from the **what** to the **how** of quality—how teachers interact with children, how they use time and materials to get the most out of every moment, and how they ensure that children are engaged and stimulated.

Many early childhood programs now utilize the Classroom Assessment Scoring System (CLASS) to support growth and impact child outcomes. Developed to make teacher-child interactions objective and measurable, CLASS is based on many years of studies, publications, and replications across different classrooms. The research that the CLASS is based on verifies that the interactions measured by the CLASS tool make a real difference in children's learning and development.

The CLASS measure:
- Is a structured observation measure. Essentially, observers make standardized judgments and attach those to a 1-7 Likert scale based on a careful review of the age-appropriate manual.
- Is a process tool. We know through research that structure is mediated by process—that the "whats" of quality teaching (structural features such as books, curricula, lesson plans) matter only through the "hows" of quality teaching (how teachers use time and materials to get the most out of every moment).

- Was originally developed for use in pre-K classrooms but has been expanded for use in classrooms from the infant to the secondary grade level.
- Provides a consistent approach to measuring teacher-student interactions during critical developmental periods, while still providing a context-specific and developmentally sensitive metric for each age group.

CLASS is about more than raising teachers' scores. It is about fundamentally improving teaching and learning. From research, we know that interactions matter more than a teacher's degree, length of experience, or number of toys and books in the classroom. It is teacher-child interactions that drive learning.

Organization of the CLASS Tool

The CLASS measure organizes effective classroom interactions into broad categories or domains, which are further subdivided into dimensions.

CLASS domains and dimensions give us common definitions of effective teaching across grade levels and content areas. Let's take a closer look on the next page:

Infant

Responsive Caregiving
- Relational Climate
- Teacher Sensitivity
- Facilitated Exploration
- Early Language Support

Toddler

Emotional and Behavioral Support
- Positive Climate
- Negative Climate
- Teacher Sensitivity
- Regard for Child Perspectives
- Behavior Guidance
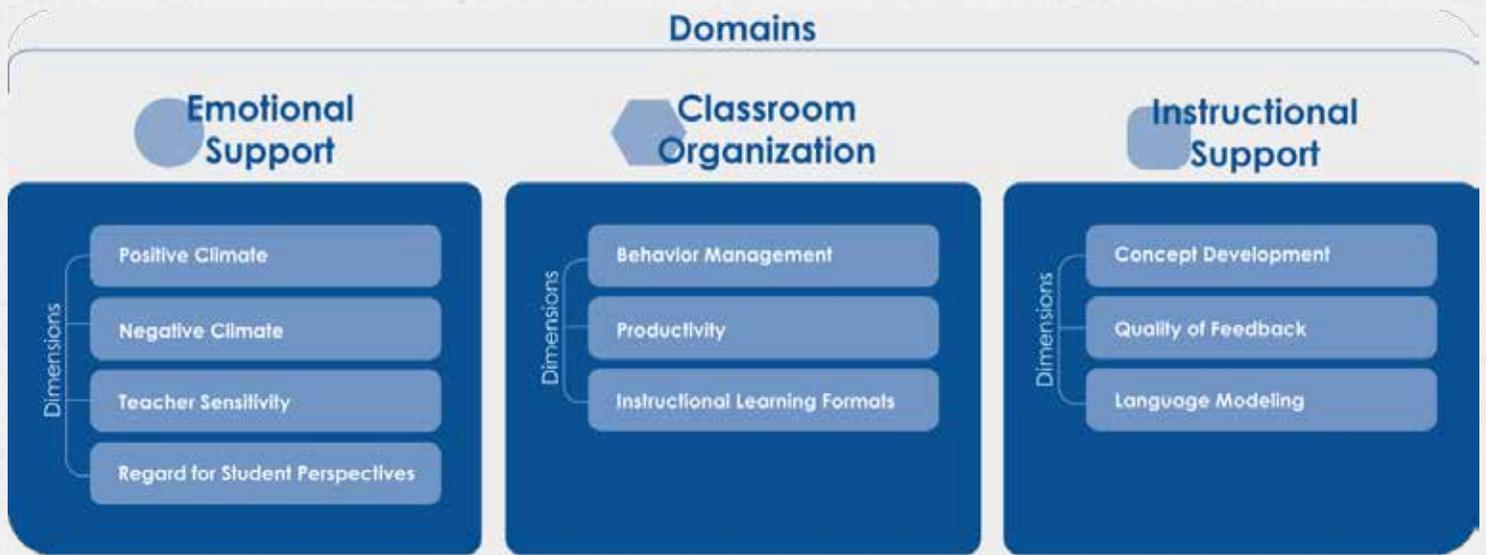
Engaged Support for Learning
- Facilitation of Learning and Development
- Quality of Feedback
- Language Modeling

Pre-K

Emotional Support
- Positive Climate
- Negative Climate
- Teacher Sensitivity
- Regard for Student Perspectives

Classroom Organization
- Behavior Management
- Productivity
- Instructional Learning Formats

Instructional Support
- Concept Development
- Quality of Feedback
- Language Modeling

K-3

Emotional Support
- Positive Climate
- Negative Climate
- Teacher Sensitivity
- Regard for Student Perspectives

Classroom Organization
- Behavior Management
- Productivity
- Instructional Learning Formats

Instructional Support
- Concept Development
- Quality of Feedback
- Language Modeling

Upper Elementary

Emotional Support
- Positive Climate
- Teacher Sensitivity
- Regard for Student Perspectives

Classroom Organization
- Behavior Management
- Productivity
- Negative Climate

Instructional Support
- Instructional Learning Formats
- Content Understanding
- Analysis and Inquiry
- Quality of Feedback
- Instructional Dialogue

* Student Engagement

Secondary

Emotional Support
- Positive Climate
- Teacher Sensitivity
- Regard for Student Perspectives

Classroom Organization
- Behavior Management
- Productivity
- Negative Climate

Instructional Support
- Instructional Learning Formats
- Content Understanding
- Analysis and Inquiry
- Quality of Feedback
- Instructional Dialogue

* Student Engagement

As you can see, each age level is broken down into the dimensions and categories that best measure effective interactions.

Teachstone | CLASS

To see the domains and dimensions at work, let's take a closer look at the organization of the pre-K tool:

Domains

Emotional Support	Classroom Organization	Instructional Support
Positive Climate	Behavior Management	Concept Development
Negative Climate	Productivity	Quality of Feedback
Teacher Sensitivity	Instructional Learning Formats	Language Modeling
Regard for Student Perspectives		

Dimensions

- **Emotional Support** looks at positive relationships among teachers and children, the ways that teachers support social/emotional functioning, and the degree to which teachers promote children's autonomy.
- **Classroom Organization** considers how well time and behavior is managed to maximize learning opportunities.
- **Instructional Support** encompasses the ways in which teachers implement lessons and activities to promote both cognitive and linguistic development. It also focuses on how teachers use feedback to help children learn.

The organization of the CLASS tool gives observers the framework to objectively and accurately code teacher-child interactions in the moment. The organization of the tool also gives teachers and those that support them an idea of what areas of improvement teachers need to focus on. The domains and dimensions of the CLASS aren't surprising—they are the things we already know about great teaching, but the ability to be specific about what they look and sound like, and the research that makes these things measurable, gives us good reason to focus our work.

Chapter 4:
CLASS Scores and Child Outcomes

What Do CLASS Scores Mean?

Trained and certified CLASS observers use the CLASS to capture both the lower-quality and higher-quality behaviors that are demonstrated in the classroom in each dimension. Scores are assigned using a scale across several important dimensions:

- **Low-range scores (1-2)** are assigned when behaviors associated with a dimension were demonstrated in a low-quality manner, were lacking, or were rarely present in the classroom interactions.

- **Mid-range scores (3-5)** are assigned when the classroom interactions associated with a dimension were somewhat present during the classroom observation or a part of some children's experience.

- **High-range scores (6-7)** are assigned when the classroom interactions were highly characteristic of a dimension during the observation. High-range behaviors are those that are meaningful, consistent, sustained, and reflective of everyone's experience in the classroom.
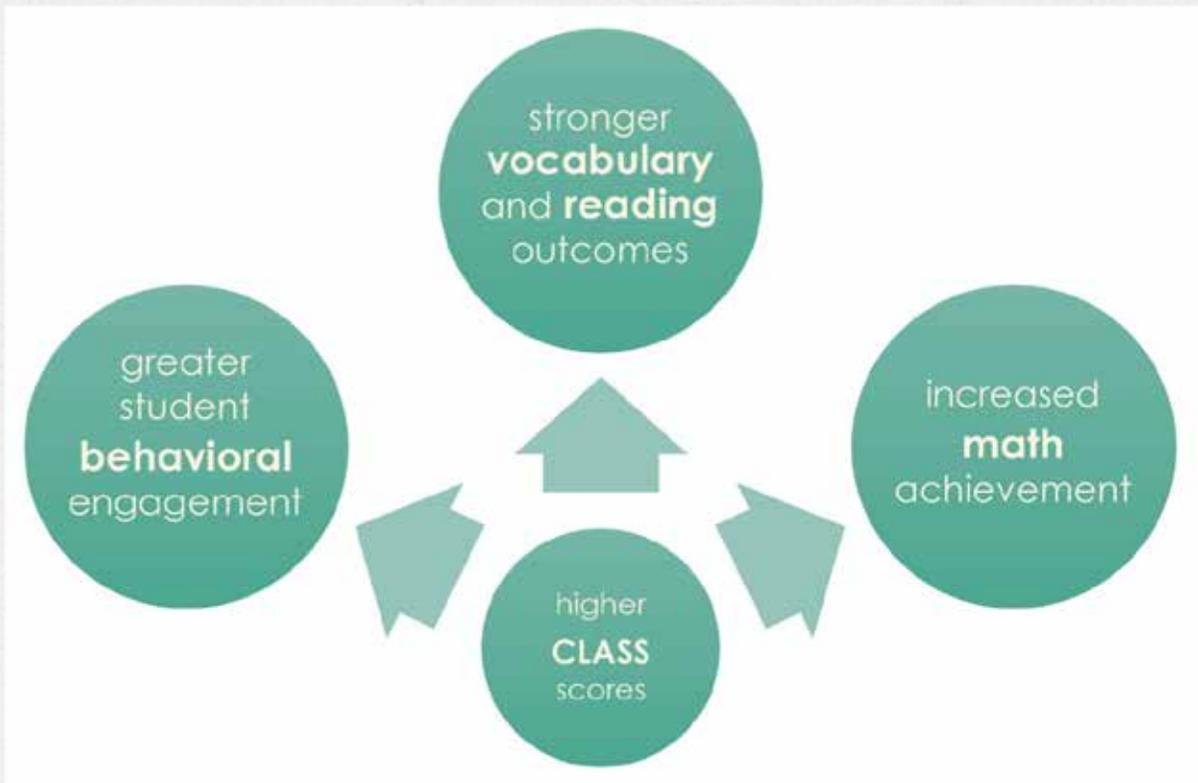
We know from years of research that higher CLASS scores are predictive of children's social and emotional development.

- **Greater Student Behavioral Engagement:** In preschool, more effective interactions are associated with gains in social competence and lower behavior problems.[7]
- **Stronger Vocabulary and Reading Outcomes:** In preschool, more effective teacher-child interactions are associated with higher scores in vocabulary and reading, key skills for children about to enter kindergarten.[8]
- **Increased Math Achievement** - More effective interactions in preschool are also associated with increased math outcomes (on a test that measured basic early math skills, including counting, numeracy, comparisons, addition/subtraction, and telling time).[9]

These findings all suggest an important correlation between CLASS scores and child outcomes.

> "Of the five individual quality indicators [used in this study], the CLASS measure of teacher-child interaction quality consistently was the strongest predictor of children's learning.[10]

CLASS Scores

Student Achievement

Teachstone **(•CLASS**
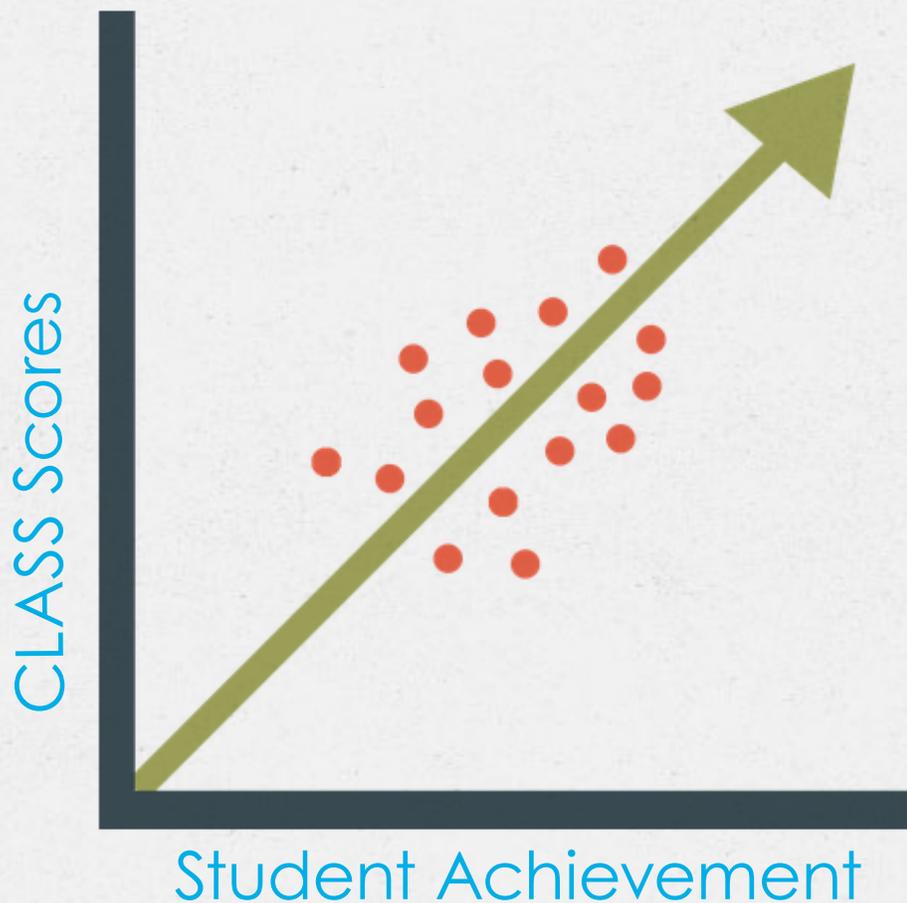
Helping Teachers Improve

One of the most important findings from CLASS-based research over the past decade is that *teachers can improve their interactions with children.*

Several professional development programs tested in research settings have resulted in significant improvements ranging from one-fifth to a full point on the seven-point CLASS scale—small differences that mean real improvements in quality and child outcomes.

Programs and resources that have proven effective at increasing CLASS scores include coaching, coursework, and a video library of effective teaching exemplars. Teachstone provides all three:

VIDEOS
- CLASS Video Library
- Classroom snapshots
- And more!

COACHING
- MyTeachingPartner™ Coaching
- Making the Most of Classroom Interactions
- CLASS Discussion Toolkit
- And more!

COURSES
- Introduction to the CLASS Tool
- Looking at CLASSrooms
- Instructional Support Strategies
- And more!

Getting Started

Each organization is unique. Contact us to find out more about CLASS and the products and services that will help you deliver on the promise of CLASS: quality education for all children.

End Notes

1. National Research Council and Institute of Medicine. (2000). From Neurons to Neighborhoods: The Science of Early Childhood Development. Washington, D.C.: National Academy Press.

2. Urban Child Institute. Pre-K Matters. Retrieved November 11, 2014, from http://www.urbanchildinstitute.org/resources/infographics/pre-k-matters

3. Urban Child Institute. Pre-K Matters. Retrieved November 11, 2014, from http://www.urbanchildinstitute.org/resources/infographics/pre-k-matters

4. Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., … Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. Child Development, 79(3), 732-749.

5. La Paro, K. M., Pianta, R. C., & Stuhlman, M. (2004). The Classroom Assessment Scoring System: Findings from the prekindergarten year. The Elementary School Journal, 104(5), 409-426.

6. Howes et al., Early Childhood Research Quarterly, 23(27).

7. Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. Early Childhood Research Quarterly, 23(4), 431-451.

8. Mashburn et al., 2008

9. Masburn et al., 2008

10. Masburn et al., 2008

11. Sabol, T. J., Soliday Hong, S. L., Pianta, R. C., & Burchinal, M.R. (2013). Can rating pre-K programs predict children's learning? Science, 341(6148) 845-846.

Ready to deliver on the promise of CLASS?

Introducing: **myTeachst⬛ne**

This all-in-one online subscription service gives administrators, coaches, teachers, and observers the tools and technology they need to improve teaching practices. Because when teachers get better, children's outcomes get better—that's the promise of CLASS.

www.myteachstone.com
contact@teachstone.com
866.998.8352

866.998.8352   **Teach**stone⬛ ((CLASS