



7-2017

# The Classroom Engagement Scale: Validity Evidence and Implications for Use

Katherine Barghaus

*University of Pennsylvania*, barghaus@upenn.edu

John Fantuzzo

*University of Pennsylvania*, JOHNF@GSE.UPENN.EDU

Kristen Coe

*University of Pennsylvania*, kcoe@gse.upenn.edu

Benjamin Brumley

*University of Pennsylvania*, brumley@upenn.edu

Whitney LeBoeuf

*University of Pennsylvania*

Follow this and additional works at: [https://repository.upenn.edu/pennchild\\_briefs](https://repository.upenn.edu/pennchild_briefs)

 Part of the [Early Childhood Education Commons](#), and the [Educational Assessment, Evaluation, and Research Commons](#)

## Recommended Citation

Barghaus, Katherine; Fantuzzo, John; Coe, Kristen; Brumley, Benjamin; and LeBoeuf, Whitney, "The Classroom Engagement Scale: Validity Evidence and Implications for Use" (2017). *Research Briefs*. 2.

[https://repository.upenn.edu/pennchild\\_briefs/2](https://repository.upenn.edu/pennchild_briefs/2)

This paper is posted at ScholarlyCommons. [https://repository.upenn.edu/pennchild\\_briefs/2](https://repository.upenn.edu/pennchild_briefs/2)

For more information, please contact [repository@pobox.upenn.edu](mailto:repository@pobox.upenn.edu).

---

# The Classroom Engagement Scale: Validity Evidence and Implications for Use

**Description**

This research brief describes the validation of the Classroom Engagement Scale for use in kindergarten based on its current full-scale use in the School District of Philadelphia. It provides the foundation for more meaningful use of the scale by parents and teachers as they work to build social-emotional competencies in kindergarten students.

**Keywords**

Classroom Engagement, Measurement, Kindergarten

**Disciplines**

Early Childhood Education | Education | Educational Assessment, Evaluation, and Research

**Publisher**

Penn Child Research Center

# The Classroom Engagement Scale: Validity Evidence and Implications for Use

Katherine Barghaus, John Fantuzzo, Kristen Coe, Benjamin Brumley,  
and Whitney LeBoeuf

University of Pennsylvania, Graduate School of Education  
July 2017



## CES at a Glance

- ✓ Developed in partnership with teachers
- ✓ Valid for use with different student group
- ✓ Valid for measuring changes over time
- ✓ Predicts important outcomes in K and third grade

Success in school depends not only on academic skills but also on the social-emotional competencies of academic and social engagement. *Academic engagement* reflects a student's approach to participating in learning activities for example by demonstrating consistent effort. *Social engagement* reflects a student's approach to participation in the classroom community such as working cooperatively.<sup>1</sup> These skills are observable, teachable, and readily incorporated into classroom instruction and home routines, making them prime candidates for sustainable interventions.<sup>2</sup> It is not surprising then that the Every Student Succeeds Act calls for a broader definition of student success that includes indicators such as classroom engagement. To answer this call, we need evidence-based measures of student engagement tied to specific strategies that teachers and families can use to support the development of these important skills.

## What is the Classroom Engagement Scale?

The Penn Child Research Center<sup>3</sup> and School District of Philadelphia have partnered to foster classroom engagement skills in kindergarten. As part of this effort, we developed the Classroom Engagement Scale (CES), a research-based measure of observable and teachable engagement skills.<sup>4</sup> The CES is used with all kindergarteners in the District and appears on the kindergarten report card four times a year. It consists of 14 questions about students' academic and social engagement skills, which teachers rate as *improvement needed*, *satisfactory*, or *outstanding*.

Evidence from our rigorous evaluation of the CES supports the use of the CES by kindergarten teachers with all students to assess their engagement skills at kindergarten entry and monitor their development during kindergarten. Below we highlight some key findings from this evaluation and next steps for the CES.<sup>5</sup>

## The CES Captures Dimensions of Academic and Social Engagement



### Academic Engagement

- Demonstrates consistent effort
- Completes work on time
- Can work independently
- Participates in group activities
- Strives for quality work

### Social Engagement

- Works/plays cooperatively with others
- Handles conflict appropriately
- Respects others
- Accepts responsibility
- Moves between activities appropriately
- Respects school environment and materials
- Listens and follows directions



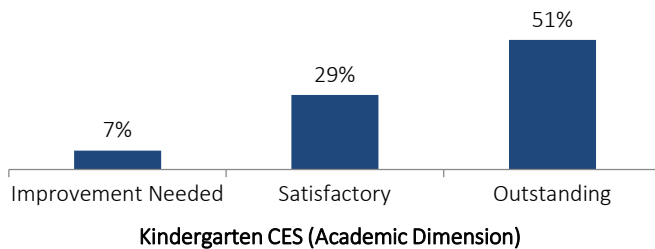
We found that the academic and social engagement dimensions operate consistently across sex, race/ethnicity, English Language Learners, students with disabilities, and free/reduced lunch recipients. The CES dimensions also operate consistently across report card marking periods, so the dimensions can be used to understand how these skills develop across the year.

## The CES Dimensions Relate to Other Outcomes

Scores on the academic and social engagement dimensions in kindergarten were significantly related to important outcomes in kindergarten and in third grade:

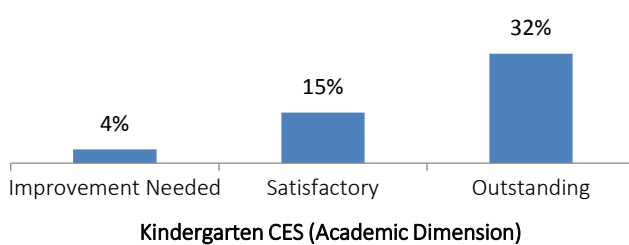
- Scores on both dimensions in kindergarten were significantly related to kindergarten mathematics grades, absences, suspensions, and early literacy (as measured by AIMSweb scores).
- 51% of students rated “Outstanding” on Academic Engagement in kindergarten met proficiency standards on the third-grade English Language Arts Pennsylvania System School Assessment (PSSA), while only 7% of students rated as “Improvement Needed” met proficiency standards.<sup>6</sup>

### % Proficient English Language Arts PSSA in third grade



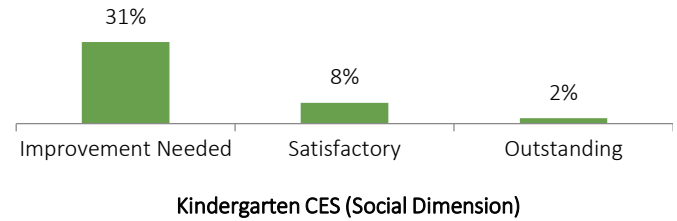
- 32% of students rated “Outstanding” on Academic Engagement in kindergarten met proficiency standards on the third-grade Mathematics PSSA, while only 4% of students rated “Improvement Needed” met proficiency standards.

### % Proficient Mathematics PSSA in third grade



- Only 2% of students rated “Outstanding” on Social Engagement in kindergarten were suspended in third grade; whereas 31% of students rated “Needs Improvement” were suspended.

### % Suspended in third grade



The Academic and Social Engagement dimensions add to our understanding of these third-grade outcomes above and beyond other kindergarten measures of similar outcomes (e.g., kindergarten Academic Engagement predicted third-grade Mathematics PSSA performance above and beyond kindergarten math grades).

## Potential Next Steps

Potential next steps include using the CES as the basis for developing evidence-based interventions to support students’ development of classroom engagement skills. Ultimately, the CES and this intervention could be extended from pre-kindergarten through third grade to monitor and support students’ development of these skills throughout these critical early grades. The CES provides an opportunity for teachers, administrators, and parents to work together to ensure our youngest students are connected to their learning activities and their classroom communities.

## Acknowledgements

We would like to thank the School District of Philadelphia’s Office of Early Childhood Education and the William Penn Foundation for their support of this work. The opinions expressed in this brief are those of the authors and do not necessarily reflect the views of the District or Foundation.

For more information on the CES please contact Dr. Katherine Barghaus at [barghaus@upenn.edu](mailto:barghaus@upenn.edu).

1. Finn, J. D., & Zimmer, K. S. (2012). Student engagement: What is it? Why does it matter? In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 97–132). New York, NY: Springer
2. McKown, C. (2017). *Social and Emotional Learning: A Policy Vision for the Future*. The Future of Children, Policy Brief.
3. For more information on the Penn Child Research Center please visit: <https://child.gse.upenn.edu/>
4. Please see the technical report for details on the development of the CES, study methodology and all study findings.
5. Source: derived from data provided by The School District of Philadelphia. © 2015 The School District of Philadelphia. All rights reserved.
6. Average CES scores of 1.5 to 2 were categorized as “Outstanding,” scores of 0.5 to 1.49 were categorized as “Satisfactory,” and scores of 0 to 0.49 were categorized as “Improvement Needed.”