

Preschool classrooms are most productive and provide the most learning opportunities when students are consistently interested and engaged in learning tasks. Children's cognitive and language development depend greatly on the opportunities that adults provide to introduce and assist development of complex skills. The ability to support children's social and emotional functioning in the classroom is also essential for effective classroom practice. When students associate teachers with their support system, they are more likely to pursue goals that are

valued by those teachers, such as engagement in academic activities.

The Classroom Assessment Scoring System™ (CLASS™) is a research-based observation tool, developed at the University of Virginia, to assess the quality of preschool classroom interactions.<sup>1</sup> The CLASS™ provides a common lens for observing classrooms and has been used by early childhood educators, policymakers, and researchers to measure and improve classroom practices in the areas of emotional, organizational, and instructional support.

<sup>1</sup> See <http://www.teachstone.org/about-the-class/>

## Goals of the Pennsylvania Pilot

In March of 2010, the Pennsylvania Office of Child Development and Early Learning (OCDEL) conducted a statewide pilot of the CLASS™. The objective of the pilot was to investigate the following questions:

- 1) What are the potential uses of this tool to support quality improvement across the continuum of early care and education services?
- 2) What is the value and feasibility of using the CLASS™ as a supplement or alternative to assessments of classroom quality currently in use?

After these two research questions were considered, a third area of investigation was:

- 3) What is the cost-benefit of small or full scale implementation of the CLASS™?

Of specific interest in the evaluation of cost-benefit was the ease of administration, relevance to teachers in their classroom practice, utility as a training opportunity for teachers, and value for directors as a quality improvement tool.

## Training and Reliability

Fourteen assessors were recruited for the pilot to represent all regions of the state and a variety of disciplines in early care and education. Four assessors had previous training in conducting Environment Rating Scale (ERS) classroom observations. Each assessor participated in the two-day training, and was asked to administer six preschool classroom

assessments over a three-month period. Four of the participants additionally completed a Train-the-Trainer program.

Ten of 14 trainees achieved reliability through the vendor's training program.<sup>2</sup> The ERS assessors, all of whom have multiple years of classroom observational experience, achieved

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## Training and Reliability continued...

Table 1: Number of CLASS™ assessors by ECE discipline and region

	Central	NE	NW	SC	SE	SW	Total
Early Childhood Mental Health		1	1				2
Early Education Resources/TA	1		1.5	1		0.5	5
Early Intervention						2	2
ERS Assessor	1	0.5	1	0.5	1		4
Preschool Program Specialist				1		1	3
<b>Total</b>	<b>2</b>	<b>1.5</b>	<b>3.5</b>	<b>2.5</b>	<b>1</b>	<b>3.5</b>	<b>14</b>

Note: Assessors which spanned two regions were counted 0.5 in each.

CLASS™ reliability without difficulty. Assessors not reaching reliability tended to score programs slightly higher in all areas than those who had reached reliability. Assessors who were considered not reliable found working with a reliable assessor helpful. If implementing the program systematically, OCDEL would require reliability for all assessors.

Preschool providers were randomly sampled across all active STAR 3 and 4 child care centers. The sample was stratified by region to ensure uniform coverage across the commonwealth.<sup>3</sup> OCDEL is grateful to all programs for agreeing to participate and for providing classroom access to visiting assessors. Ninety-two assessments were conducted for the pilot; seventy-three were completed by assessors who met reliability standards.

<sup>2</sup> Reliability is reached by scoring 80% or more either correctly or within one of the master codes. The CLASS™ manual is available for use during reliability testing, along with notes sheets, and a help number. Only data from reliable assessors is used in statistical reporting.

<sup>3</sup> All statistical findings are reported as unweighted statistics; results are consistent with weighted analysis.

## Pilot Results

The ten dimensions of the assessment are each rated on a scale from one through seven, and are organized into three domains: Emotional Support, Classroom Organization, and Instructional Support. Table 2 presents pilot outcome results. Classrooms tended to score highest on Emotional Support in the classroom

(5.76), indicating that most classrooms were pleasant for children and teachers. Classrooms in the pilot also scored high on Classroom Organization (5.06), indicating that classroom activities typically provided learning opportunities during transitions, and children knew where they were supposed to be and what they should be doing.

Table 2: PA CLASS™ pilot dimension simple statistics

	Mean	Std Dev	Min	Max
<b>Emotional Support</b>	<b>5.76</b>	<b>0.84</b>	<b>3.13</b>	<b>7.00</b>
Negative Climate (Reversed)	6.50	0.66	4.50	7.00
Positive Climate	5.96	1.05	2.75	7.00
Teacher Sensitivity	5.41	1.07	2.75	7.00
Regard to Student Perspectives	5.11	1.11	2.00	7.00
<b>Classroom Organization</b>	<b>5.06</b>	<b>1.02</b>	<b>2.67</b>	<b>6.92</b>
Behavior Management	5.35	1.22	2.33	7.00
Productivity	5.18	1.14	3.00	7.00
Instructional Learning Formats	4.61	1.16	1.50	7.00
<b>Instructional Support</b>	<b>3.65</b>	<b>1.13</b>	<b>1.50</b>	<b>6.33</b>
Language Modeling	3.80	1.20	1.75	6.50
Quality of Feedback	3.68	1.21	1.50	6.00
Concept Development	3.49	1.21	1.25	6.75

Notes: N=73; Negative Climate is reversed so higher scores reflect an absence of negativity.

## Pilot Results continued...

Classrooms tended to score lowest on Instructional Support (3.65), suggesting that teachers were missing opportunities to scaffold learning for children, to extend and deepen the meaning of daily activities, and

to provide rich, detailed language to enhance understanding and vocabulary. No classroom reached a 7 in any of the three dimensions of Instructional Support and scores ranged as low as 1.25.

## Assessor and Provider Feedback

Assessors provided feedback on the training and use of the CLASS™. Many assessors found that training to reliability was stress inducing. Assessors deemed not reliable felt they benefited from working with those who were reliable and staying rooted in the book<sup>4</sup>. They also felt that it was easier to assess someone unknown rather than someone whose habits were known.

Feedback on the use of the assessment included suggestions for using the tool in conjunction with the ERS and/or Technical Assistance (TA). Program specialists and ERS Assessors would be ideal candidates for receiving the CLASS™ training and incorporate it

into their ongoing Continuous Quality Improvement (CQI) activities. Other suggestions for future use of the CLASS™ include targeted professional development, tying the CLASS™ to child outcomes to inform instruction and care, and using the CLASS™ as a teaching tool in higher education.

Assessment results were shared with all participating providers. Providers were positive toward the CLASS™ and found it to be informative and helpful. Most directors wanted more information about CLASS™ such as how they can apply the findings into a plan for quality improvement.

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<sup>4</sup> “Classroom Assessment Scoring System Manual Pre-K” by Robert Pianta, Karen M. La Paro, and Bridget K. Hamre

## National Trends and State QRIS

Pennsylvania’s pilot of the CLASS™ follows national trends<sup>5</sup>, scoring high to low on emotional support, classroom organization, and instructional support, respectively. Studies using CLASS™ have found that children are typically exposed to emotional support at the high end of the mid-range and classroom organization is typically located in the mid-range. In contrast to findings on emotional support and classroom organization, students are typically exposed to lower quality instructional supports in early childhood classrooms.

Across all rated items, STAR 4 classrooms were found to score slightly higher than STAR 3 classrooms. This

relationship supports the use of CLASS™ and Keystone STAR ratings as valid measures of program quality. Although STAR 4 centers scored higher across all CLASS™ dimensions, the relative strengths of subscales were different between STAR 3 and 4 providers. Behavior Management and Productivity were higher than Teacher Sensitivity and Regard for Student Perspectives in STAR 4 centers, which was reversed in STAR 3 centers. This inversion of relative strengths may reflect chance variation, or may indicate something important about what is encouraged to facilitate quality at those different levels. Further use may help identify Professional Development to drive consistency across all STAR levels.

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<sup>5</sup> Hamre, B.K. & Pianta, R. C. (2007). Learning opportunities in preschool and early elementary classrooms. In R.C. Pianta, M. J. Cox, and K. Snow (Eds.), *The new American elementary school* (pp. 49-84). Baltimore: Paul H. Brookes.

## National Trends and State QRIS continued...

The low scores in STAR 3 and 4 centers in areas relating to instructional support were consistent with national trends. Professional development to enhance teachers' skills in these areas may be helpful. Individual scores are

useful for identifying specific domains that might require close attention across the program or in individual classrooms—or for identifying areas with excellent scores, in which best practices are modeled.

## The Future of the CLASS™ in Pennsylvania

Pennsylvania has used the Environment Rating Scales (ERS) as the benchmark classroom assessment tool in monitoring for the Keystone STARS, PA Pre-K Counts and State funded Head Start State programs. There were many reasons behind the selection of this tool in 2002 including its applicability to all ages (infant/toddler, preschool, school age) and varied settings (center and home based). Additionally, the ERS has been and continues to be used locally, nationally and internationally as a reliable and valid tool for QRIS and research projects. The ERS tools have well-developed accompanying training materials and understandable progressions for improvements that programs could undertake. The use of the ERS tool has provided a strong foundation in Pennsylvania for development of a consistent recognition of quality, tools programs can use to establish continuous quality improvement goals and as a standard for monitoring programs.

Many Pennsylvania administrators of high quality early learning programs are interested in additional research-based tools to use in improving teaching and learning in their programs. It is important for directors and staff across Pennsylvania's continuum of early childhood sectors to be aware of the CLASS™ and its possible use for staff professional development and continuous quality improvement.

The CLASS™ is gaining popularity as an observational classroom assessment tool, as it provides detailed information related to teacher and child interaction. Beginning in 2010, the Office of Head Start is requiring administration of the CLASS™ for a sample of federal Head Start classrooms and providing training and TA to programs in support of its use. Several states such as FL, MN, AZ and GA have likewise incorporated the CLASS™ into their state Early Care and Education Quality Rating and Improvement Systems (QRIS).

Based on the results from this study, and the emerging national research literature, OCDEL recommends CLASS™ training as professional development for those in the ECE field, and also as coursework for the early childhood higher education field. Following this study, OCDEL is interested in increasing the use of the CLASS™ for a number of purposes:

- As an observational tool for programs and technical assistance providers to use in assessing quality in classrooms and teacher skills to inform professional development needs and to provide a roadmap for technical assistance.
- As an additional source of information or evidence for a program when establishing continuous quality improvement goals in the teaching and learning category.
- As a resource for OCDEL in determining strengths and areas of professional development for the field to improve outcomes for children. For example, from this initial study additional professional development for teachers in the area of instructional support is indicated.
- As a means to explore the relationships between components of program quality and child outcomes.

As OCDEL continues to consider the capacity and cost/benefit for taking the CLASS™ to scale, steps have been taken to train a cadre of instructors in the Spring/Summer of 2011 who will be able to provide professional development to directors on the implementation of the tool beginning in 2011/12. Next steps are to develop the coursework, or use already developed training materials, to improve skills the tool is assessing. OCDEL is also working to deepen the understanding and use of the CLASS™ for technical assistance consultants.