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MASSACHUSETTS DEPARTMENT OF EARLY EDUCATION AND CARE

# Race to the Top—Early Learning Challenge Grant Validation of Educator Competency Study



2013

ANNUAL REPORT  
Abbreviated Executive Summary



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■ The full report, *Race to the Top–Early Learning Challenge Grant: Validation of Education Competency Study: 2013 Annual Report*, is available from the Massachusetts Department of Early Education and Care.

# ABBREVIATED EXECUTIVE SUMMARY

## Introduction

The Massachusetts Department of Early Education and Care (EEC) contracted with American Institutes for Research (AIR) to provide comprehensive, rigorous, and high-quality research addressing the following four substudy areas of the Validation of Educator Competency Study:

- Study 1: Validation of educator competencies related to social-emotional development
- Study 2: Validation of educator competencies related to literacy
- Study 3: Validation of educator competencies related to numeracy
- Study 4: Evaluation of the effectiveness of digital strategies in increasing teacher competency and parent involvement in children's development

The Validation of Educator Competency Study encompasses two data collection phases: 2013 and 2014. This abbreviated executive summary presents findings and methodology from data collected in 2013.

The Validation of Educator Competency Study was conceptualized around four central goals:

- Goal 1: To measure the relationship between the quality of classroom<sup>1</sup> practices with children from birth to age 5 in a variety of settings and children's developmental outcomes
- Goal 2: To identify the importance of particular classroom practices for children's development
- Goal 3: To identify the structural elements, professional development, and instructional supports (including digital strategies) associated with educator competency.
- Goal 4: To identify the structural elements and parental supports associated with parent engagement

## Methods Overview

For the current study, AIR implemented a three-stage sampling plan. We selected early education and care sites from the population file of sites participating in the Massachusetts Quality Rating and Improvement System (QRIS) provided to us in November 2012. To ensure equal numbers of sites across regions (i.e., Central, Metro, Metro Boston, Northeast, Southeast and Cape, and Western), AIR employed a stratified random-sampling approach. We then randomly selected educators within the sites that had agreed to participate in the study. Finally, we randomly selected children for each educator. This abbreviated executive summary is based on the 60 early education and care settings that participated in the study in Phase 1 (2013).

Between March and September 2013, AIR collected data within these sites using classroom observations; surveys of educators, site administrators, and parents; and indirect assessments (educator reports) of children's skills related to social-emotional development, language and literacy, and numeracy.

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<sup>1</sup> We use the term *classrooms* to represent both center-based and family-based child care groupings of children within a setting.

## Highlighted Findings and Recommendations

This abbreviated executive summary highlights select key findings, which are aligned with the provided recommendations.

### Key Finding 1:

Similar to other studies of educator quality that use the Classroom Assessment Scoring System (CLASS), a greater percentage of classrooms demonstrated higher quality in terms of emotional support (CLASS Pre-K domain and CLASS Toddler domain) compared to the percentage of classrooms that scored in the high-quality range for instructional support (CLASS Pre-K domain) and support for learning (CLASS Toddler domain).

**RECOMMENDATION 1: Continue to hold educators to high expectations to support not only children’s healthy social-emotional development but also their early learning.** Possible strategies are as follows: Continue to provide training for educators to build upon this area of strength. Consider providing additional training for educators to support the use of appropriate instructional practices for learning. Inform educators through multiple avenues—through support for higher education, workshops, or literature highlights (such as the findings from this study)—about the importance of why and how they can engage young children in their early learning in a variety of areas.

### Key Finding 2:

The quality of instructional support practices for children (CLASS Pre-K domain) was significantly and positively associated with educator reports of preschool-age children’s developmental outcomes in language and literacy skills but not with numeracy skills. Educators’ quality of engaged support for learning, as measured by the CLASS Toddler, was significantly and positively related with toddler-age children’s developmental outcomes in language, literacy, and numeracy.

**RECOMMENDATION 2: Provide professional development opportunities to address educator practices in the following areas:**

- **Concept Development.** *Concept development* refers to educator use of instructional discussions and activities to promote children’s higher-order thinking skills and cognition and educator focus on understanding rather than on rote instruction. Possible strategies are as follows: Provide educators with concrete strategies for engaging in this type of practice, such as asking children open-ended questions (e.g., why, how, what do you think), providing opportunities for children to brainstorm ideas or produce new ideas, and connecting learning activities in the classroom to their outside world.

- **Instructional Feedback.** Quality *instructional feedback* refers to the extent to which educators provide children with individualized feedback that expands their learning and understanding and that encourages their continued engagement in learning activities. Possible strategies are as follows: Provide educators with concrete strategies for engaging in this type of practice, such as asking children to explain their thinking and/or give further explanation, responding to children with follow-up questions, and providing children with words of recognition and encouragement as they work.

### Key Finding 3:

For preschool-age children, educator competency in early language and literacy practices, as measured by the modified Early Language and Literacy Classroom Observation (ELLCO) and the ELLCO checklist, was significantly and positively related to educator reports of children's early literacy skills.

**RECOMMENDATION 3: Provide professional development opportunities to address educator practices in early language and literacy.** Professional development topics for early language and literacy practice should focus on approaches to book reading with different age groups as well as different size groups, emphasizing research-based strategies for facilitating whole-group, small-group, and one-on-one book reading. In addition, professional development should focus on ways that educators can teach the concepts of print (e.g., what an author is, how to turn pages).

### Key Finding 4:

For preschool-age children, educator competency in numeracy or early mathematics practices as measured by the modified Classroom Observation of Early Mathematics–Environment and Teaching (COEMET) was significantly and positively related to educator reports of children's early mathematics skills.

**RECOMMENDATION 4: Provide professional development opportunities to address educator practices in early mathematics or numeracy.** Professional development topics for early numeracy practice should focus on informing educators of the various age-appropriate early mathematics skills that children should know (as outlined in the Massachusetts early learning guidelines) and outlining exemplary activities that educators could employ in the classroom or family-based child care setting to build those skill areas.

### Key Finding 5:

More than half of educators had low levels of instructional supports available to them, according to a composite measure of the level of instructional supports for educators overall. The examined instructional supports were as follows: total professional development hours, total amount of coaching received, total time given to plan, access to additional planning materials, and access to technological/digital devices.

**RECOMMENDATION 5A: Design and offer professional development opportunities for all classroom staff, including center-based educators, family-based child care educators, and classroom assistants.** These opportunities should be available through a combination of formats, such as the following:

- Consider including **hands-on group workshops** that are available for free or at a low cost within particular geographic communities, followed by ongoing **individualized support** to educators as they practice using new strategies with children.
- Consider including additional **opportunities for educators to collaborate** with one another to discuss strategies and share ideas.
- Consider offering **individualized coaching or mentoring** for educators through regional educational consultants or community-based early educators with exceptional levels of quality practice.
- Encourage program-level and/or site-level administrators to allow for **formal planning time** for educators.
- Develop **lesson planning resources** that provide specific learning activities, which educators can implement in the classroom to develop children's social-emotional, language, literacy, and numeracy skills.

**RECOMMENDATION 5B: Address barriers to staff participation in available professional development.** Financial costs, time away from the classroom, and staff concerns with respect to child care for their own children are among the barriers identified for educators within the current study. Possible strategies are as follows: To encourage increased participation in available professional development offering, consider providing sites with financial stipends to hire substitute educators and to provide child care for educators.

### Key Finding 6:

A majority of sites (67 percent) did not report expelling any children during the past six months; 26 percent reported that less than 5 percent of enrolled children were expelled; and 7 percent reported that more than 5 percent of enrolled children were expelled. For the sites that reported expulsions during the past six months, 40 percent were due to financial hardship or difficulties and 28 percent were due to physical aggression by the child toward peers or adults.

**RECOMMENDATION 6: Collect additional data from early education and care sites to better understand the processes and protocols that sites employ when expelling children from their site and to identify potential site supports to reduce the number of expulsions.**

### Key Finding 7:

About half of educators reported using digital devices for children’s learning activities, and about one third of educators reported the use of such devices at least on a weekly basis. Lack of use, in part, may be an issue of access to the devices because approximately 30 percent to 40 percent of educators reported that they did not have access to such technological devices for these types of learning activities. However, some educators did report having access to the devices but reported that they never used them.

**RECOMMENDATION 7: Provide supports to increase educator use of technology to enhance the planning and implementation of learning activities.** Educators need access to technology (including the Internet) at work, which represents an additional cost for programs. Possible strategies are as follows: Consider offering supports (perhaps grants, stipends, or subsidies) that would help offset this expense. Furthermore, even some educators who have access to digital devices are not using them for learning activities; provide trainings as well as print resources for educators that outline specific strategies for incorporating technology into learning activities with children. In addition, educators need training on how to seek out the right resources online to plan learning activities; consider training programs for educators that not only teach them to navigate the Internet but also introduce them to the websites that could assist them in planning children’s learning activities.

### Key Finding 8:

A majority of parents engage regularly with their child in activities such as reading books (65 percent), singing songs (64 percent), and counting aloud (63 percent). However, few parents engage in writing activities with their child (less than 20 percent) or activities for learning basic mathematics operations (9 percent).

**RECOMMENDATION 8: Provide print and electronic resources for sites to share with parents and other caregivers regarding learning activities in which they can engage with their child at home.** Such resources should be developed for particular age groups and sequenced in such a way to facilitate alignment with learning activities that educators are implementing in the classrooms or family-based child care settings. Consider allocating funding toward site-based learning-activity lending libraries, where parents can check out materials and activities to use with their child in the home.

## Next Steps

The Validation of Educator Competency Study is a multiyear research endeavor. The findings presented in this abbreviated executive summary reflect data collected in 2013, the first year of a two-year study. Specifically, for the literacy and numeracy studies, findings should be considered preliminary because additional data will be collected in 2014. The research questions will be reexamined using the pooled 2013 and 2014 data.



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