



Organizing Early Education for Improvement

Voices From the Field on Essential Supports

WRITTEN BY DEBRA M. PACCHIANO, MAUREEN R. WAGNER AND HOLLY LEWANDOWSKI

Young children are gaining access to and enrolling in preschool programs across the country in increasing numbers. Unfortunately, the quality of these programs varies tremendously. The highest quality programs disproportionately serve children from the most advantaged homes. By contrast, lower quality and less effective programs disproportionately serve children from underresourced communities—the very children who stand to benefit most from top-notch early childhood education (Valentino 2017). Although leaders, teachers, staff, and families in all programs want to see children learn, grow, and thrive, research confirms that, on average, instructional quality remains mediocre. Studies in which researchers observe and assess interactions between teachers and children in publicly funded preschool classrooms show that, on average, instructional quality is well below the level associated with academic or social gains for children (Aikens et al. 2013). A growing body of research demonstrates that strengthening the organizational climate and conditions surrounding classroom practice and family engagement offers an effective method for increasing quality.

We spent time observing early childhood education programs, some that were high functioning and some that were not. We talked with leaders, teachers, staff, and families about what supported them in, or hindered them from, implementing higher quality teaching and positively impacting children’s learning. Differences in their organizational climates and conditions were unmistakable. Simply put, high-performing sites had organizational contexts far more supportive of teaching, learning, and family engagement than sites that were not high performing. In this article, we describe those strong organizational contexts and how they empower leaders, teachers, and families to aspire to and realize higher quality practice and better outcomes for young children.

Strengthen Organizational Conditions to Lift Quality

Robust research evidence from K–12 education highlights the importance of organizational climate and conditions for improving school performance (Allensworth, Ponisciak, & Mazzeo 2009; Kraft, Marinell, & Shen-Wei Yee 2016). Researchers at the University of Chicago Consortium on School Research (UChicago Consortium) identified five organizational features of schools that interact with life inside classrooms and are essential to growth in student achievement: effective leaders, collaborative teachers, involved families, supportive environment, and ambitious instruction (Bryk et al. 2010). (See “The Five Essentials Framework,” right.)

These researchers found that high-quality teaching and sustained student engagement in the classroom depend in large measure on whether leadership and staff engage in a culture of ongoing support and development. Surveys of teachers and students measuring these five essential supports strongly predicted which schools were most and least likely to show improvements in student engagement and achievement over time. Elementary schools that were strong in at least three of these essential supports were 10 times more likely to substantially improve

student achievement in reading and math than schools that were weak in most of these essentials. Importantly, a sustained weakness in a single essential support reduced the likelihood of the school improving student learning to less than 10 percent (Bryk et al. 2010).

Early childhood education programs are complex organizations that are similar in many ways to elementary schools; what occurs in early childhood classrooms (in school or community settings) is influenced by the policies, practices, and relationships that prevail across the entire organization. Research focused on organizational aspects of early education programs suggests that programs with supportive climates and cultures are more likely to exhibit higher quality environments (Dennis & O’Connor 2013) and instruction that ultimately enhance children’s learning (Burchinal et al. 2010; Ehrlich et al. 2018). Without a simultaneous focus on strengthening classroom practices and the organizational contexts that enable effective instruction, it is unlikely that schools or centers will realize meaningful, sustained improvements in the quality of young children’s education.

The Five Essentials Framework



© UCHICAGO IMPACT

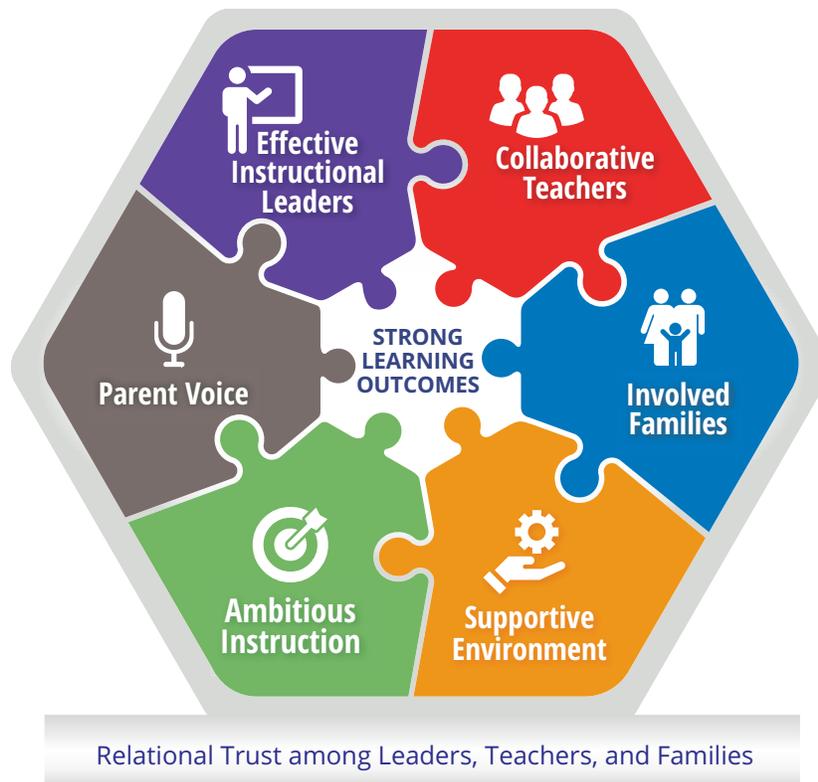
THE ESSENTIALS OF EARLY EDUCATION

Four years ago, researchers at the Ounce of Prevention Fund and the UChicago Consortium combined their knowledge of early childhood education program implementation and school improvement, seeking to better understand the relevance of essential organizational supports to the performance of early childhood education settings. This work culminated in the Early Education Essentials framework. We identified six organizational conditions that are essential for creating and sustaining a high-quality early learning program, and we developed a set of teacher and parent surveys that measure these essential organizational supports in school- and community-based early education settings.

From 2014 through 2016, our team engaged in a rigorous and iterative development and testing process to adapt the existing UChicago Consortium's 5 Essentials teacher surveys for applicability in early childhood education; we also created a new parent survey. In 2017, we conducted a validation study

designed to determine whether the new surveys capture credible and useful information about the organizational conditions of early education programs. (Readers interested in learning more about our work are encouraged to visit www.theounce.org/early-education-essentials/ and to review our prior publications; see, for example, Pacchiano et al. 2018 and Ehrlich et al. 2018). Quantitative findings were very positive, confirming that the surveys are reliable across settings and that responses are valid because survey scores relate to both teacher-child interaction quality (as measured by the Classroom Assessment Scoring System [CLASS], Pre-K) and attendance outcomes. In addition, we found that in early childhood education, parents and families offer a unique perspective that is best captured by a distinct essential: Parent Voice. Our validation study helped confirm our original hypothesis about the relevance of organizational conditions to the performance of early education sites. The six essential conditions of early education that follow are the culmination of this series of studies.

Essential Organizational Supports



1. Effective Instructional Leaders: *Sites poised for improvement have school or program leadership strategically focused on children's development and early achievement. These leaders nurture trust, collective understanding, and responsibility for excellence and improvement among staff and families. A growing body of data in the early childhood field links the beliefs and practices of program leaders to classroom-level constructs of structural and interactional quality (McCormick Center for Early Childhood Leadership 2010). For example, a recent study found that classrooms achieving the highest scores on a measure of teacher-child interaction quality also had leaders reporting high expectations for their staff and allocating resources to build staff professional capacity (Rohacek et al. 2010).*

2. Collaborative Teachers: *In sites with collaborative teachers, staff are committed to the school or program, build strong and trusting relationships with their colleagues, and work together continuously to improve teaching and learning. Research in early childhood settings indicates that teacher collaboration improves teacher effectiveness and yields meaningful improvements in children's achievement (Rohacek et al. 2010). The degree of workplace support for professional learning and collaboration with peers has been found to be central to continuous improvements in classroom practice (Whitebook & Ryan 2011). Two preschool-focused randomized control trials compared traditional workshop training to weekly in-class mentoring from exemplary peers and weekly peer collaboration to unpack curriculum. In both trials, teachers in the collaboration conditions reported greater satisfaction with their professional learning and higher rates of trust and appreciation for peers; end-of-year observations indicated that collaborative teachers provided greater emotional support to children and talked with children more frequently and in more cognitively complex ways (Domitrovich et al. 2009).*

3. Supportive Environment: *Sites with supportive environments are physically and emotionally safe and engaging. All staff hold high expectations for children's social, emotional, and academic learning, coupled with nurturing and positive emotional supports for children*

and families. A robust body of literature establishes the link between preschool and elementary teachers' emotionally supportive interactions with children—interactions that are frequent, warm, and responsive to children's needs—and children's improved social and academic outcomes (for example, Phillips, Gormley, & Lowenstein 2009). Recently, researchers have begun exploring whether the social and emo-



tional climate of a school or center contributes to classroom quality in preschool. Significant associations have been found between overall organizational climate and classroom structural quality, such that classrooms in centers rated as having more positive relational organizational climates (e.g., high ratings of teachers' relationships with their colleagues and leadership) were rated higher in regard to classroom structural quality (e.g., high ECERS-R scores) (Dennis & O'Connor 2013).

4. Ambitious Instruction: *In sites with ambitious instruction, teachers and staff provide consistently engaging, effective, rigorous, and developmentally appropriate curriculum and instruction. Extensive research has linked developmentally appropriate and instructionally meaningful teacher-child interactions—those that prompt children's thinking and develop their concept knowledge and vocabulary—to gains*

in children’s learning outcomes (e.g., Howes et al. 2008; Mashburn et al. 2008). Findings from a national study indicate that preschool children who spend more time engaged with teachers who implement developmentally appropriate practices demonstrated larger gains at the end of the year on measures of oral language, literacy, and math (Chien et al. 2010). Underscored in the early childhood education research is the importance of teachers’ goal orientation and their intentionality in using developmentally appropriate instruction to develop children’s early literacy, early math, and expressive language—especially for children from low-income households



(Burchinal et al. 2010). A major longitudinal study of effective classroom practices of 12 sites with positive child outcomes found that the pedagogy at those sites was characterized by teaching that involved “sustained shared thinking” between teachers and children working one-on-one and in small-group activities (Sylva et al. 2004, 2010). Also, leaders and staff viewed educational and social development as complementary and of equal importance in the preschool years.

5. Involved Families: *In sites with involved families, staff develop mutually respectful and collaborative relationships with families and support active family*

engagement in children’s learning. Family education is an integral component of virtually all early childhood programs. Early education research and practice has long focused on the critical roles of families in supporting children’s learning outcomes. Numerous studies suggest that the meaningful engagement of families in their children’s early learning supports both kindergarten readiness and long-term academic success (Henrich & Gadaire 2008). Children with involved families exhibit higher levels of social skills and motivation and greater academic gains in both reading and math (McWayne et al. 2004). Further, families receiving support services demonstrate improvements in their parenting knowledge and attitudes and reductions in material hardships (Layzer et al. 2001). By connecting with families early on as partners in the educational process, early childhood education programs establish strong home–school connections that support children’s engagement and achievement (Hindman et al. 2012).

6. Parent Voice: *Parents and guardians feel included as partners in their children’s learning and development, including influence over the programming.* Parents and guardians in sites with strong organizational conditions receive specific feedback on children’s learning and development and, in turn, provide their own knowledge and input to guide teachers’ decisions. All families, regardless of their race, ethnicity, or income level, feel valued and respected by the program. Leaders and staff treat children’s family members as knowledgeable partners and create leadership opportunities for parents and guardians in the school or center community. Leaders, teachers, and staff ensure that families fully understand the value of early childhood education and are equipped to support their children’s learning.

DYNAMICS OF THE EARLY EDUCATION ESSENTIALS FRAMEWORK

The six early education essential conditions are best understood together, as interdependent subsystems undergirding the daily work of teaching and learning in early childhood education programs. Each essential contributes to student outcomes and to the other essentials. That is, when one of the

essential supports is strengthened, it supports the development of the others. Only when all of these essentials are collectively strong can sites create contexts that are fully supportive of teaching, learning, and family engagement, enabling and encouraging the work that staff engage in daily with each other and with children and families.

Although all of the essentials are mutually reinforcing, two essentials—leadership and teacher collaboration—play unique roles and can be seen as entry points for strengthening the other organizational supports (Pacchiano, Klein, & Shigeyo Hawley 2016). Leadership is the driver of change, while teacher collaboration is the vehicle that leaders use to drive improvement. Leaders are responsible for creating a climate and conditions supportive of teaching and continuous improvement. This includes establishing a purpose-driven vision for excellence, building relational trust, galvanizing staff activity in the service of improvement, and providing teachers with coherent instructional guidance and time during the workday to collaborate with colleagues to work toward ambitious instruction and improved practice (Hargreaves & Fullan 2012). During this protected time, teachers work together to develop and continuously improve curriculum and instruction, emotionally supportive learning environments, and family engagement. Together, these two levers—leadership and teacher collaboration—build a foundation for early education programs to create and sustain strength in the other essential organization conditions.

Illustrations of the Essentials in Action

To illustrate the interplay between the essentials, we provide further description along with illustrative quotes from field research. Readers interested in more information are encouraged to read the full report detailing the findings of this research (Pacchiano et al. 2018). In sites where the essentials are strong, leaders develop a program vision grounded in early childhood developmental science, then continually employ their vision by clarifying strategy and influencing staff members' actions toward the shared vision. Leaders use formal and informal opportunities and conversations to reaffirm priorities, inform



and encourage staff, and reinforce commitment to action. These leaders cultivate a collaborative culture by modeling and celebrating reflection, inquiry, discussion, and learning in order to support staff to improve practice. Leaders reframe challenges as problems of practice so they can guide the work and stimulate new thinking about common issues. A teacher we interviewed at a strongly organized early childhood education program illustrates the positive impacts of a growth-minded leader and a collaborative culture on teachers' work:

I feel like it's empowering [here]—it's not just from the top down. It's right here, and we believe in this stuff and I have something to share and it's valued by our administrator. Then your co-teachers, and your colleagues also buy in too, and you have that energy and you have that love. Then you have an administrator that pushes you in that way and supports you and guides you and nudges you a bit farther. I think it's kind of what we try to do with our students too, now, even when they're only 3. I think [the principal/director] leads by example, for sure.

Leaders champion and depend on teacher collaboration to build internal professional capacity. Leaders have confidence that, with ongoing professional learning, staff will innovate practice to better meet the needs of all children. Leaders expect staff to take on leadership roles that support practice improvement.

In centers and schools where the six essentials are well implemented, leaders ensure that teachers have routine, protected time to meet together to discuss children's learning, to raise problems of practice, to receive encouragement, to share ideas, and to coplan instructional improvements. One teacher shared an example of how she and her teaching team routinely used this time to improve their ability to meet the needs of diverse learners:

We have a team meeting weekly ... I'll talk about two kids, and then I'll have each teacher talk about one. Then we put in our individualized plan, and we talk about goals in different areas. So, whether it's social-emotional that we need to be working on, or cognitive, language, literacy—whatever it is—we bring that up with the whole team so everybody shares what they've seen and the steps that we need to take with that child, moving forward.

Teacher collaboration is structured, data informed, and focused on immediate problems of practice related to improving children's learning. When this essential is strong, collaboration opportunities have a clear purpose and process and are designed to deepen knowledge and improve teaching and learning. Leaders work alongside teachers using protocols to focus discussions, examine data, and build shared commitments to best practices. A teacher in a strongly organized school told us:



We do a lot of observations in each other's classrooms, which is helpful. Two or maybe three times this year so far we used a protocol where we went into each other's rooms and wrote down ... four things you saw that you wanted to highlight, three things you wanted to take back, and then two things that you had questions about. [Then] we went back, sat down, and talked about it. That was really interesting.

In contrast, programs in which only one or two essential supports are strong find that the benefits of those strengths are limited by the lack of organization in other areas. For example, teachers may establish systems of collaboration but may struggle to protect that time without leader support and lack focus without aligned curriculum, meaningful assessment data, and family input on children's needs. Only by considering these organizational essential supports together can programs build and maintain comprehensive organizational strength.

Structuring Leader-Facilitated, Teacher-Led Improvement

In addition to a reliable and valid tool to measure the strength of the essentials in their programs, early childhood education practitioners need resources that enable effective use of the data to make changes and improve over time. Research suggests that practitioners' motivation and success using evidence to inform decision-making is enhanced when data are displayed visually and when data review, interpretation, and use are structured by protocols that leaders and staff use together (Leithwood et al. 2010). The essentials teach us that it matters greatly how leaders interact with their staff as they drive change. Leaders who enable fundamental change interact with teachers in facilitative and inclusive ways that intentionally structure teacher influence and encourage staff to persist in improvement efforts. They also serve as instructional leaders by intentionally supporting teachers and staff in their daily work. Teachers and staff need professional learning time and support from leaders to critically reflect about practice in order to improve that practice as well as children's learning.

Using the Early Education Essentials framework and survey data as their conceptual and decision-making model, leaders can navigate accountability demands more constructively and generate improvement more effectively. The data dialogue and root cause analysis process leads to increased exploration and analysis of strengths and weaknesses. Leaders and staff can problem solve collaboratively to identify small changes toward improvement. This process builds trust, which is the foundation for change between leaders, teachers, and staff.

It also drives momentum for change by allowing everyone to realize small wins on the path to greater improvement. Recent work has focused on creating resources that help practitioners use the Early Education Essentials survey data to empower improvement. In particular, these resources help practitioners learn how to conduct root cause analysis of their organizational strengths and weaknesses and to engage in Plan-Do-Study-Act cycles. Together, these processes deepen their confidence in using data collaboratively and in making incremental steps toward positive change. One teacher expressed how much the root cause analysis honors diverse perspectives and experiences, stating:

I've done some data-driven meetings before in regards to parent concern, but I don't think I've ever had the opportunity before to analyze the root cause, ... [asking], "Why did you think the parent felt this way?" ... Having the opportunity to sit down as a team and analyze what the root could possibly be and ... coming] from different perspectives, different walks of life, different social backgrounds, different economic backgrounds, different races—I think that was something very valuable about this tool that I just haven't experienced before.

After engaging with just one cycle of this process over the course of one year, teachers and staff expressed a sense of empowerment and excitement to work together toward further change. One teacher reflected on her new appreciation of the power of focusing on small changes, saying:

Having that structure helped us to be able to say, "This seems like a gigantic problem, but really ...



[we] can just take little pieces of it and ... work together as a team to make some changes." That might not seem like big, earth-shaking changes in parent connection, but we're already starting to see some improvement.

Leaders also expressed enthusiasm for how the process supported continuous improvement efforts while building stronger relationships and trust among leaders and staff. One leader remarked, "This kind of made us want to blossom ... we saw that this is what happens with this minimum effort and to think what we could do if we expanded this ... if we did this all year long!"

Conclusion

A growing body of research demonstrates the power and importance of organizational conditions to increase the quality of early childhood education settings. These organizational conditions matter greatly to the actions of leaders and staff because they affect daily actions and attitudes toward the school or center. For families, leaders and staff in sites with strong essential conditions pave the way for meaningful program-family partnerships, whereas sites with weak essentials relegate families to the periphery. Simply put, strong implementation of the essentials enables and encourages the work that staff engage in daily with each other and with children and families.

Moreover, early childhood education programs are best empowered to make improvements to their organizational conditions when equipped with clear and actionable data, data reports designed to promote and enable inquiry, structured protocols to facilitate collaborative decision-making, and ongoing rapid cycles of improvement focused on small changes.



Amid the patchwork of funding streams and regulatory systems, the key to driving performance is how leaders bring coherency to the focus and direction of the program and buffer staff from fragmented thinking and task-based approaches. A program leader's developmentally based vision and facilitative approach define the levels of motivation, action, persistence, and happiness of all adults in the site. Strong leaders build the capacity of their staff to meet the diverse learning needs of their young students by protecting time for staff collaboration. Routine discussions of practice ignite collective understanding, responsibility, and, most critically, persistent action to improve teaching and learning.

To fully and effectively engage in this work, leaders need time and resources to investigate their programs' organizational conditions, to bring together teachers and staff for collaborative inquiry and decision-making, and to follow through on making and studying the small changes identified. The Early Education Essentials framework calls into question

the effectiveness of compliance-oriented, top-down organizational structures in early education institutions. Policymakers seeking to raise the performance of early childhood education schools and centers should consider how these essential organizational support structures and practices supplant other program standards that have not been linked to greater staff commitment, higher-quality implementation, and better child outcomes. In addition, it would be wise to conceptualize professional development investments into those designed to empower site-based instructional leadership and routine job-embedded teacher collaboration, specifically. The field stands to benefit greatly from a broadened definition of quality that includes organizational conditions and the important role of leaders and instructional guides.

Raising organizational quality demands the concerted and coordinated efforts of early childhood education program leaders, teachers, staff, and families, along with systems-level support from organizations, school districts, and policymakers. Through this work, the early education field has an opportunity to create programs that are better structured to empower and support leaders, teachers, and families in the critically important work of educating young children.

ABOUT THE AUTHORS

Debra M. Pacchiano is vice president, translational research, at the Ounce of Prevention Fund. She is an applied researcher who conceptualizes, implements, evaluates, and scales models of professional learning and practice development to improve leadership, teaching, and learning in early education. She is co-principal investigator on the Early Education Essentials project and is currently adapting the surveys for infant-toddler settings.

Maureen R. Wagner is a program manager at the Ounce of Prevention Fund. She supported the initial research to develop and validate the Early Education Essentials measurement system and now helps early childhood education programs across the country implement these tools.

Holly Lewandowski, MA, is president of Evaluation for Change, Inc. She has worked as a program-evaluation and qualitative-research consultant for the past 10 years, focusing on education evaluations spanning early childhood to post-secondary education.

REFERENCES

- Aikens, N., A.K. Klein, L. Tarullo, & J. West. 2013. *Getting Ready for Kindergarten: Children's Progress During Head Start: FACES 2009 Report*. OPRE Report 2013-21a. Washington, DC: Office of Planning, Research & Evaluation, Administration for Children & Families, US Department of Health.
- Allensworth, E., S. Ponisciak, & C. Mazzeo. 2009. *The Schools Teachers Leave: Teacher Mobility in Chicago Public Schools*. Chicago: Consortium on Chicago School Research.
- Bryk, A., P. Sebring, E. Allensworth, S. Luppescu, & J. Easton. 2010. *Organizing Schools for Improvement: Lessons From Chicago*. Chicago: University of Chicago Press.
- Burchinal, M., N. Vandergrift, R. Pianta, & A. Mashburn. 2010. "Threshold Analysis of Association Between Child Care Quality and Child Outcomes for Low-Income Children in Pre-Kindergarten Programs." *Early Childhood Research Quarterly*. Vol. 25, No. 2, 166–76.
- Chien, N., C. Howes, M. Burchinal, R. Pianta, S. Ritchie, D. Bryant, R. Clifford, D.M. Early, & O. Barbarin. 2010. "Children's Classroom Engagement and School Readiness Gains in Prekindergarten." *Child Development*. Vol. 81, No. 5, 1534–49.
- Dennis, S.E., & E. O'Connor. 2013. "Reexamining Quality in Early Childhood Education: Exploring the Relationship Between the Organizational Climate and the Classroom." *Journal of Research in Early Childhood Education*. Vol. 27, No. 4, 74–92.
- Domitrovich, C.E., S.D. Gest, S. Gill, K.L. Bierman, J.A. Welsh, & D. Jones. 2009. "Fostering High-Quality Teaching with an Enriched Curriculum and Professional Development Support: The Head Start REDI Program." *American Educational Research Journal*. Vol. 46, No. 2, 567–97.
- Ehrlich, S.B., D.M. Pacchiano, A.G. Stein, M.R. Wagner, S. Luppescu, S. Park, E. Frank, H. Lewandowski, & C. Young. 2018. *Organizing Early Education for Improvement: Testing a New Survey Tool*. Chicago: University of Chicago Consortium on School Research and the Ounce of Prevention Fund.
- Hargreaves, A., & M. Fullan. 2012. *Professional Capital: Transforming Teaching in Every School*. New York: Teachers College Press.
- Henrich, C.C., & D.M. Gadaire. 2008. "Head Start and Parent Involvement." *Infants and Young Children*. Vol. 21, No. 1, 56–69.
- Hindman, A.H., A.L. Miller, L.C. Froyen, & L.E. Skibbe. 2012. "A Portrait of Family Involvement during Head Start: Nature, Extent, and Predictors." *Early Childhood Research Quarterly*. Vol. 27, No. 4, 654–67.
- Howes, C., M. Burchinal, R. Pianta, D. Bryant, D.M. Early, R.M. Clifford, & O. Barbarin. 2008. "Ready to Learn? Children's Pre-Academic Achievement in Pre-Kindergarten Programs." *Early Childhood Research Quarterly*. Vol. 23, No. 1, 27–50.
- Kraft, M., W. Marinell, & D. Shen-Wei Yee. 2016. "School Organizational Contexts, Teacher Turnover, and Student Achievement: Evidence from Panel Data." *American Educational Research Journal*. Vol. 53, No. 5, 1411–49.
- Layzer, J.I., B.D. Goodson, L. Bernstein, & C. Price. 2001. *National Evaluation of Family Support Programs Final Report, Vol. A: The Meta-Analysis*. Washington, DC: Office of Planning, Research & Evaluation, Administration for Children & Families, US Department of Health. www.acf.hhs.gov/programs/opre/abuse_neglect/fam_sup/reports/famsup/fam_sup_vol_a.pdf.
- Leithwood, K., S. Anderson, B. Mascall, & T. Strauss. 2010. "School Leaders' Influences on Student Learning: The Four Paths." In *Principles of Educational Leadership and Management*, 2nd ed., eds. T. Bush, L. Bell, & D. Middlewood, 3–30. Thousand Oaks, CA: SAGE.
- Mashburn, A., R. Pianta, B. Hamre, J. Downer, O. Barbarin, D. Bryant, M. Burchinal, D.M. Early, & C. Howes. 2008. "Measures of Classroom Quality in Prekindergarten and Children's Development of Academic, Language, and Social Skills." *Child Development*. Vol. 79, No. 3, 732–49.
- McCormick Center for Early Childhood Leadership. 2010. *Head Start Administrative Practices, Director Qualifications, and Links to Classroom Quality*. Issue brief. Wheeling, IL: National Louis University.
- McWayne, C., V. Hampton, J. Fantuzzo, H.L. Cohen, & Y. Sekino. 2004. "A Multivariate Examination of Parent Involvement and the Social and Academic Competencies of Urban Kindergarten Children." *Psychology in the Schools*. Vol. 41, No. 3, 363–77.
- Pacchiano, D.M., R. Klein, & M. Shigeyo Hawley. 2016. *Reimagining Instructional Leadership and Organizational Conditions for Improvement: Applied Research Transforming Early Education*. Chicago: The Ounce of Prevention Fund.
- Pacchiano, D.M., M.R. Wagner, H. Lewandowski, S.B. Ehrlich, & A.G. Stein. 2018. *Early Education Essentials: Illustrations of Strong Organizational Practices in Programs Poised for Improvement*. Chicago: The Ounce of Prevention Fund and the University of Chicago Consortium on School Research.
- Phillips, D.A., W.T. Gormley Jr., & A.E. Lowenstein. 2009. "Inside the Pre-Kindergarten Door: Classroom Climate and Instructional Time Allocation in Tulsa's Pre-K Programs." *Early Childhood Research Quarterly*. Vol. 24, No. 3, 213–28.
- Rohacek, M., G.C. Adams, E.E. Kisker, A. Danziger, T. Derrick-Mills, & H. Johnson. 2010. *Understanding Quality in Context: Child Care Centers, Communities, Markets, and Public Policy*. Washington, DC: Urban Institute. www.urban.org/sites/default/files/publication/29051/412191-Understanding-Quality-in-Context-Child-Care-Centers-Communities-Markets-and-Public-Policy.PDF.
- Sylva, K., E. Melhuish, P. Sammons, I. Siraj-Blatchford, & B. Taggart. 2004. "The Effective Provision of Pre-School Education (EPPE) Project: Findings from Pre-School to End of Key Stage 1". Paper. Nottingham, UK: Department for Education and Skills.
- Sylva, K., E. Melhuish, P. Sammons, I. Siraj-Blatchford, & B. Taggart, eds. 2010. *Early Childhood Matters: Evidence from the Effective Pre-School and Primary Education Project*. London: Routledge.
- Valentino, R. 2017. "Will Public Pre-K Really Close Achievement Gaps? Gaps in Prekindergarten Quality Between Students and Across States." *American Educational Research Journal*. Vol. 55, No. 1, 79–116.
- Whitebook, M., & S. Ryan. 2011. *Degrees in Context: Asking the Right Questions about Preparing Skilled and Effective Teachers of Young Children*. Berkeley, CA: The National Institute for Early Education Research and the Center for the Study of Child Care Employment.