EARLY CHILDHOOD BRIEF

Gretchen Kirby, Anne Douglass, and Lizabeth Malone

Understanding and Measuring Leadership in Center-based Early Care and Education to Inform Policy and Practice

Effective leadership is an important component of high quality early care and education (ECE). Practice and policy in ECE is broadening its view of leadership beyond just management functions to include leadership for change, improvement, and innovation. The Early Care and Education Leadership Study (ExCELS) was launched to help define leadership in center-based ECE settings that serve children birth to five and understand how leadership can support quality improvement.

This brief highlights key findings from a literature review, Understanding Leadership in Early Care and Education: A literature review, that informed ways to define and measure leadership in center-based ECE settings for use in informing policy and practice (Kirby et al. 2021). The literature review along with the ExCELS theory of change (Douglass, Kirby, and Malone 2023) guided the development of a new measure of leadership in center-based ECE settings. Defining and measuring the key elements to strong ECE leadership could inform policies or funding strategies for professional development, training, or technical assistance efforts to support ECE center staff as leaders and agents of quality improvement. Additionally, a measure of leadership could expand the empirical understanding of what makes for effective leadership that produces positive outcomes for staff, center quality, families, and children.

In this brief, we first present three key elements that we drew from the literature to define and measure leadership in the ECE field. The three elements are (1) who participates in leadership, (2) what individuals bring to leadership, and (3) what center staff do as leaders to promote positive outcomes. We then describe how leadership can influence outcomes.

We conclude this brief with a summary of next steps for a new measure of ECE leadership that can inform policy and practice.

Literature review methods

The review (Kirby et al. 2021) drew from 51 sources, 30 that were specific to ECE. We used a two-tiered search strategy to identify sources to review:

- A comprehensive search on leadership in ECE, focusing on leaders within center-based settings that serve children birth to five.
- A targeted search for reviews, syntheses, or meta-analyses of leadership in the K–12, health, and management fields that best apply to the unique qualities of ECE settings and ECE leadership.

In searching other fields, we were not exhaustive; we identified commonalities in defining leadership and the unique contributions that come from perspectives outside of ECE. For each source, we documented the leadership measures used; data sources and respondents; leadership elements examined; and whether and how the association between leadership and outcomes was assessed.

Who participates in leadership

When we think of leadership, we often think of individuals in formal management roles. Center based ECE programs typically have at least one formal manager role, such as a center director. Center directors or others who hold management positions have an important and essential role in leadership; however, leadership in center-based ECE settings can also include teaching staff and families. Leadership is a process of influencing change and can include anyone who contributes to decision-making and improvement. In this way, teaching staff and family contributions are important to consider when defining who participates in leadership in center-based ECE settings.

Distributed leadership recognizes the participation of teaching staff and families in leadership, which may be well suited to the ECE context.

Distributed leadership in the ECE context refers to the combined participation of center managers, teaching staff, and families in decision-making, planning, and implementing change. It values the expertise and contributions of a range of individuals as leaders (Heikka and Hujala 2013; Nicholson et. al. 2018; Spillane 2001). In this way, participation in leadership is seen more broadly as a set of actions or behaviors among many individuals rather than centralized with one person in a formal position.

The goals and values that are reflected in a distributed leadership approach align well with the ECE context. ECE research highlights that distributed leadership embeds relational competencies and practices, an ethic of care and collaboration, inclusivity, and shared power—all of which align with the context and goals of the ECE field (Austin 2014; Dunlop 2008; Douglass 2017; Leeson et al. 2012; Nicholson et al. 2018; Sims and Waniganayake 2015). In addition, distributed leadership supports equity because it is a way of sharing and distributing power and decision-making across a range of individuals with different backgrounds and perspectives.

Center manager leaders: staff (one or multiple) who hold formal responsibility for overseeing administrative, operational, and instructional activities within an ECE center including a primary site leader or director

Teaching staff leaders: teaching staff (lead, head, or co-teachers and assistant teachers) who carry responsibilities in the classroom and hold formal or informal responsibilities to supervise and support other teaching staff or contribute to decision-making and center quality improvement

Leadership: the combination of center manager and teaching staff leaders that exist within an ECE center, and the contributions of families to decision-making, change, and improvement

Distributed leadership can flourish in a variety of formal management structures based on a supportive center culture and good internal communication.

The characteristics of a center (such as its size, funding, profit status, or whether it is part of a larger organization or chain) can influence who the leaders are in the formal management structure. For example, within a larger organization, the formal management structure might involve higher-level executives that set policies and practices. The type and range of funding sources and associated requirements might also influence the number of managers in a center (Derrick-Mills et al. 2014; Dunlop 2008). Regardless of the type of management structure, a collaborative, respectful culture in which continued learning and quality improvement is valued can influence who participates in leadership by creating opportunities for staff and families to contribute to decision-making, change, and improvement (Douglass 2017; Derrick-Mills et al. 2014; Heikka and Hujala 2013).

Center manager leaders can nurture a collaborative culture that supports distributed leadership by creating channels for positive, open communication and developing processes and structures that engage and support teaching staff and families as leaders (Douglass 2017; Heikka 2015; Kangas et al. 2015; Pacchiano et al. 2016; Whitebook et al. 2016). Barriers to broad participation in leadership might exist when center managers perceive that teaching

staff lack the capacity or knowledge to contribute to decision-making and improvement. It might also be limited when center managers lack knowledge about how to design, structure, and engage teaching staff and families in decisions about center operations and improvement.

> Measuring **who participates in leadership** involves assessing the influence and contribution of teaching staff and families on center operations and improvement. Teaching staff and families can contribute to decision-making, alongside center managers, regardless of the management structure of a center.
>
> The ExCELS measure is based on surveys of center managers and all teaching staff. It gathers the perception of center staff about family contributions to decision-making and improvement to help assess who participates in leadership.

What individuals bring to leadership

What individuals bring to leadership—their qualifications (education, training, and experience) and values, beliefs about ECE—can change and develop over time. The ECE literature on leadership pushes against the notion that leadership is driven by specific traits that are inherent in some people (Douglass 2017; Dunlop 2008; Heikka and Hujala 2013; Nicholson et al. 2018; Sims et al. 2015; Wang and Ho 2018; Leeson et al. 2012). The literature emphasizes that individuals can develop their potential for leadership.

An individual's values and beliefs, in combination with their education, training, and experience, can influence their participation in center leadership and what they are able to do as leaders.

The level of education and type of training or experience of ECE center managers might influence their confidence as leaders, their approach to leadership and supporting teaching staff, and the quality of practices they pursue (Aubrey et al. 2013; Smith et al. 2019; Talan et al. 2014). For example, managers with formal degrees and ECE-specific training or certification might have more confidence and ability

to pursue practices that support classroom teaching and strong administration of the center. Education and training might also contribute to the skills and confidence of teaching staff to actively participate in decision-making and initiating change (Sims and Waniganayake 2015).

Individuals' professional identity and sense of themselves as leaders is particularly important to their participation in leadership (Abel et al. 2017; Douglass 2017, 2018; Dunlop 2008; Shivers 2012; Sims et al. 2015; Talan et al. 2014; Wang and Ho 2018). Similarly, self-efficacy, self-conception, sense of empowerment, and sense of purpose as a leader can be critical factors in how much an individual contributes to leadership. This can be true for individuals in formal management roles as well as for teaching staff who might identify as educators or practitioners.

How individuals understand and view the work of teaching and caring for young children can be as important as their identity and sense of self in influencing whether and how they participate in leadership. The values and beliefs of center managers and teaching staff that might influence their leadership include mindsets about teaching, learning, and engaging families as well as mindsets about how to change and improve by pursuing best practices and continuous learning (Barblett and Kirk 2018; Douglass et al. 2019; Dunlop 2008; Pacchiano et al. 2018; Sims et al. 2015).

> Measuring **what center managers and teaching staff bring to leadership** involves looking at the education, training, experience, values, and beliefs about ECE that they have or develop over time which can affect who contributes to leadership and in what ways.

What center managers and teaching staff do as leaders

Leadership is a process of "influencing positive change to achieve a desired goal or generate a new solution to a problem" (Douglass 2018, p. 388). Through this lens, leadership can be defined by what individuals do rather than by their job title (Douglass 2017, 2018; Dunlop 2008; Heikka and Hujala 2013).

Leadership practices and actions can be carried out by one or more individuals who have a variety of roles that extend beyond formal management roles. Defining leadership by actions and practices includes teaching staff as well as center managers as leaders.

Emphasizing actions and practices can improve our understanding of who demonstrates leadership.

The actions individuals take or practices they pursue in center-based ECE settings reflects their knowledge, skills, and abilities. Knowledge, skills, and abilities can inform a competency framework, which is useful for hiring, training, and supporting leaders (Abel et al. 2017; Institute of Medicine and National Research Council 2015). We can also view these as the competencies leaders need to effectively engage in certain practices and behaviors. For example, any manager can attempt to resolve conflicts between staff, but a manager with greater interpersonal and team-building skills might do it more effectively than one with weaker skills in this area. The K–12 education and health care literature places less emphasis on measuring knowledge, skills, and abilities to understand leadership and instead focuses on actions and behaviors (Hitt and Tucker 2016; Berghout et al. 2017). In the ExCELS study, we identified a set of practices that reflect the actions and behaviors of effective leadership in center-based ECE settings.

Leadership practices that might support positive outcomes in center-based ECE settings fall into five categories.

The ECE empirical literature suggests practices in five categories that represent effective leadership to produce positive outcomes for classroom quality and children's social-emotional development and language skills (Arbour et al. 2016; Ehrlich et al. 2018; Lower and Cassidy 2007; Rohacek et al.2010; Talan and Bloom 2011; Whalen et al. 2016; Whitebook et al. 2016). There is further empirical support about the effectiveness of these practices in producing positive outcomes from the K-12 education (Hitt and Tucker 2016) and management (Dunst et al. 2018) fields where more research on leadership has been done relative to the ECE field. Drawing from the literature, we grouped the practices into five categories to represent what center managers and teaching staff can do as leaders in center-based ECE settings.

1. **Instructional quality practices** that promote, facilitate, and enable high quality teaching and classroom quality.

   - *Examples include: using observation and feedback to help teaching staff improve, using data for improvement, ensuring dedicated time for collaborative instructional planning and support.*

2. **Relational coordination practices among center-based staff** to create and sustain a culture of respect, collaboration, and continuous learning.

   - *Examples include: building and sustaining relationships with and between staff, fostering positive workplace climate, collaboration across staff and among peers, establishing structures that support respectful collaboration and communication.*

   ....

   Relational coordination is defined as shared goals, shared knowledge, mutual respect, and high-quality communication between center managers, teaching staff, other center staff, and families.

   ....

3. **Relational coordination practices with families and the community** to promote engagement and partnerships.

   - *Examples include: setting policies to promote family partnerships, conducting activities to engage with families, engaging with the community and the field.*

4. **Strategic practices** that establish and implement a shared strategic vision.

   - *Examples include: establishing and following a vision, conducting strategic planning, engaging in self-reflection and learning.*

5. **Operational practices** that establish and manage consistent, efficient organizational structures, operations, and performance management.

   - *Examples include: compliance with regulations and requirements, ensuring smooth operations, and fiscal management.*

Measuring **what center staff do as leaders** involves looking at the actions center managers and teaching staff take and the practices they pursue in the five categories to promote quality and positive outcomes for staff, families, and children.

Practices that support instructional quality and that promote relational coordination go hand in hand to influence positive outcomes for classroom quality and children.

Two categories of practice—building relationships with staff (referred to as facilitative, collaborative, or relational coordination) and promoting instructional quality—are often connected in the literature as essential practices for effective ECE leaders (Douglass 2017; Pacchiano et al. 2016). Practices within these two categories, when bundled together, have demonstrated positive associations with classroom quality and child outcomes. A random assignment study of a professional development program found that when center directors adopted practices that promoted ambitious instruction and learning together with practices that emphasized staff participation and collaboration they achieved more growth in children's social-emotional development than when an emphasis on staff participation and collaboration was absent (Whalen et al. 2016). Another rigorous ECE study found that the bundle of practices that promoted ambitious instruction and learning, used data for improvement, and emphasized staff participation and collaboration had positive impacts on classroom quality and children's language development (Arbour et al. 2016).

How leadership can influence quality and child outcomes

The ExCELS project was motivated, in part, from longstanding questions in the field about what changes might produce improved outcomes for children's learning and development in ECE centers, particularly centers that support children living in low-income households. Understanding leadership in ECE and its role in promoting quality improvement might help improve outcomes for young children. Leadership, however, influences child and family outcomes indirectly given the many factors in the classroom, home, and community that may have a more direct role. We highlight some findings from the literature that provide insight into how leadership might influence child outcomes.

Center managers improve children's learning by building a positive organizational climate and relational trust with teaching staff.

Empirical work in K-12 education provides important findings that can be helpful in understanding what ECE center managers can do to engage staff in leadership that can lead to positive outcomes for children. These studies found that:

/ leaders must build and support relational coordination as a critical element of an environment that promotes teacher instructional practice and leadership, and ultimately results in improved outcomes for students (Bryk et al. 2010);

/ principals' leadership, as defined by teacher perceptions of principal instructional leadership and principal–teacher trust, was associated with quality and student outcomes through the learning climate (Sebastian and Allensworth 2012);

/ leadership's association with student achievement comes through the leader's influence on teacher motivation and the work environment (Seashore Louis et al. 2010); and

/ variations in student outcomes from leadership practices stem, in part, from the level of teacher trust in the school leader (Hitt and Tucker 2016).

Center managers build relational coordination and improve the center climate and work environment through their actions and practices (what they do as leaders).

While the structure and scale of K–12 education is quite different from that of center-based ECE settings, the direct connection of teaching staff with children is similar. The findings from the K–12 education field highlight the importance of center managers building a positive, collaborative climate that engages teaching staff in leadership to foster positive experiences and outcomes for children.

Involving teaching staff as leaders is important to improving quality and child outcomes.

Distributed leadership may be especially important when it comes to quality improvement. Teaching staff might have formal roles as leaders, for example by supervising or mentoring other teachers, or serving on a leadership team representing teachers (Heikka and Hujala 2013; Pacchiano et al. 2018; Wang and Ho 2018). Teaching staff can also be leaders in informal ways by building relationships with families or identifying a solution to a problem and working to implement a change to achieve a better outcome

(Wang and Ho 2018). Teaching staff might also act as leaders by empowering and collaborating with other teaching staff, for example, on making changes to meet quality standards.

· ·

Relational coordination cultivates distributed leadership, involving teaching staff as leaders in decision-making and quality improvement.

· ·

Participation in leadership among teaching staff can help create a culture of continuous learning that has been associated with quality improvement. One experimental study found that when teachers and center managers were involved in a process of continuous quality improvement together, this collective action had a positive impact on center quality and children's language development (Arbour et al. 2016). This suggests that the actions of teaching staff (what they do as leaders) play an essential role in leadership for change and improvement.

Next steps for measuring ECE leadership

Building on what we learned from the research literature, and using data from a descriptive study of 110 centers conducted in 2022, the project team created the ExCELS leadership measure. The measure includes the three key elements of leadership, described in this brief, to specify (1) who participates in leadership by including individuals who hold formal roles as well as teaching staff and families who contribute to decision-making for change and improvement, (2) what center managers and teaching staff bring to leadership and, (3) what center managers and teaching staff do as leaders based on the actions and practices they pursue. The measure captures what leadership looks like in center-based ECE settings based on these three key elements. The measure will help assess the breadth of participation in leadership among staff and families (i.e., distributed leadership). It could also identify leadership strength, or areas in need of attention. In this way, the measure could point to leadership development needs or technical assistance initiatives that might build skills, confidence, and the ability of center staff to pursue actions that promote quality and positive outcomes for children. The measure can also advance research to examine how each of the three elements of leadership might be used as a lever on its own, or in combination, to produce positive outcomes for staff, center quality, and families and children.

References

Abel, Mike, Teri Talan, and Marie Masterson. "Whole Leadership: A Framework for Early Childhood Programs." Wheeling, IL: McCormick Center for Early Childhood Leadership, 2017.

Arbour, MaryCatherine, Hirokazu Yoshikawa, Sid Atwood, Francis R. Duran Mellado, Felipe Godoy Ossa, Ernesto Trevino Villareal, and Catherine E. Snow. "Improving Quality and Child Outcomes in Early Childhood Education by Redefining the Role Afforded to Teachers in Professional Development: A Continuous Quality Improvement Learning Collaborative Among Public Preschools in Chile." Evanston, IL: Society for Research on Educational Effectiveness, 2016.

Aubrey, C., R. Godfrey, and A. Harris. "How Do They Manage? An Investigation of Early Childhood Leadership." *Educational Management Administration Leadership,* vol. 41, no. 1, 2013, pp. 5–29.

Austin, Lea J. E. "Early Care and Education Leadership: Toward a Theory of Essential Experiences, Skills and Knowledge for Effective Early Care and Education Change Agents." Doctoral dissertation. ProQuest Dissertations Publishing (UMI No. 3630410), 2014.

Barblett, Lennie, and Gillian Kirk. "National Quality Standard in Schools: Leadership Enabling Power and Agency." *Australasian Journal of Early Childhood,* vol. 43, no. 3, September 2018, pp. 43–51.

Berghout, Mathilde A., Isabelle N. Fabbricotti, Martina Buljac-Samardžić, and Carina G. J. M. Hilders. "Medical Leaders or Masters?—A Systematic Review of Medical Leadership in Hospital Settings." PLOS ONE, vol. 12, no. 9, 2017, pp. 1–24.

Bryk, A. S., P. B. Sebring, E. Allensworth, S. Luppescu, and J. Q. Easton. *Organizing Schools for Improvement: Lessons from Chicago.* Chicago, IL: The University of Chicago Press, 2010.

Derrick-Mills, Teresa, Heather Sandstrom, Sarah Pettijohn, Saunji Fyffe, and Jeremy Koulish. "Data Use for Continuous Quality Improvement: What the Head Start Field Can Learn from Other Disciplines, A Literature Review and Conceptual Framework." OPRE Report 2014-77. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation, 2014.

Douglass, Anne, Gretchen Kirby, and Lizabeth. Malone. "Theory of Change of Early Care and Education Leadership for Quality Improvement." OPRE Report #2023-097. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, US. Department of Health and Human Services, 2023.

Douglass, Anne, Tamara Halle, and Kathryn Tout. "The Culture of Continuous Learning Project: A Breakthrough Series Collaborative for Improving Child Care and Head Start Quality: Theory of Change." OPRE Report #2019-100. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation, 2019.

Douglass, Anne L. "Redefining Leadership: Lessons from an Early Education Leadership Development Initiative." *Early Childhood Education Journal,* vol. 46, no. 4, 2018, pp. 387 396.

Douglass, Anne L. *Leading for Change in Early Care and Education: Cultivating Leadership from Within.* New York, NY: Teachers College Press, 2017.

Dunlop, A. W. "A Literature Review on Leadership in the Early Years. Learning and Teaching in Scotland (LTS)." April 2008.

Dunst, Carl J., Mary B. Bruther, Deborah W. Hamby, Robin Howse, and Helen Wilkie. "Meta-Analysis of the Relationships between Different Leadership Practices and Organizational, Teaming, Leader, and Employee Outcomes." *Journal of International Education and Leadership,* vol. 8, no. 2, 2018, pp. 1–45.

Ehrlich, Stacy B., Debra Pacchiano, Amanda G. Stein, and Maureen R. Wagner. "Early Education Essentials: Validation of Surveys Measuring Early Education Organizational Conditions." *Early Education and Development,* December 2018. doi:10.1080/10409289.2018.1556969.

Heikka, J. "Shifting the Responsibility for Leadership from a Positional to a Distributed Endeavour." In *Thinking and Learning About Leadership: Early Childhood Research from Australia, Finland and Norway,* edited by M. Waniganayake, J. Rodd, and L. Gibbs. Community Child Care Cooperative NSW, Sydney, 2015.

Heikka, Johanna, and Eeva Hujala. "Early Childhood Leadership Through the Lens of Distributed Leadership." *European Early Childhood Education Research Journal,* vol. 21, no. 4, 2013, pp. 568–580.

Hitt, Dallas Hambrick, and Pamela D. Tucker. "Systematic Review of Key Leader Practices Found to Influence Student Achievement: A Unified Framework." *Review of Educational Research,* vol. 86, no. 2, 2016, pp. 531–569.

Institute of Medicine, and National Research Council. "Child Development and Early Learning: A Foundation for Professional Knowledge and Competencies." In *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation.* Washington, DC: National Academies Press, 2015. Kangas et al. 2015

Kirby, Gretchen, Anne Douglass, Julia Lyskawa, Christopher Jones, and Lizabeth Malone. "Understanding Leadership in Early Care and Education: A literature review." OPRE Report 2021-02. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2021.

Leeson, C., V. Campbell-Barr, and D. Ho. "Leading for Quality Improvement: A Comparative Research Agenda in Early Childhood Education in England and Hong Kong." *International Journal of Leadership in Education: Theory and Practice,* vol. 15, no. 2, 2012, pp. 221–236. doi:10.1080/13603124 .2011.644327

Lower, J. K., and D. J. Cassidy. "Child Care Work Environments: The Relationship with Learning Environments." Journal of Research in Childhood Education, vol. 22, no. 2, 2007, pp. 189–204. doi:10.1080/02568540709594621

Nicholson, J., K. Kuhl, H. Maniates, B. Lin, and S. Bonetti. "A Review of the Literature on Leadership in Early Childhood: Examining Epistemological Foundations and Considerations of Social Justice." *Early Child Development and Care,* 2018. doi:1 0.1080/03004430.2018.1455036.

Pacchiano, D. M., M. R. Wagner, and H. Lewandowski, with S. B. Ehrlich and A. G. Stein. "Early Education Essentials: Illustrations of Strong Organizational Practices in Programs Poised for Improvement." Chicago, IL: The Ounce of Prevention Fund and the University of Chicago Consortium on School Research, 2018.

Pacchiano, Debra, Rebecca Klein, and Marsha S. Hawley. "Reimagining Instructional Leadership and Organizational Conditions for Improvement: Applied Research Transforming Early Education." Chicago, IL: The Ounce of Prevention Fund, 2016.

Rohacek, Monica, Gina C. Adams, and Ellen E. Kisker. "Understanding Quality in Context: Child Care Centers, Communities, Markets, and Public Policy." Washington, DC: The Urban Institute, 2010.

Seashore Louis, K., K. Leithwood, K. L. Wahlstrom, and S. E. Anderson. "Learning from Leadership Project: Investigating the Links to Improved Student Learning." Final report of research findings to Wallace Foundation. Minneapolis, MN: University of Minnesota, 2010.

Sebastian, J., and E. Allensworth. "The Influence of Principal Leadership on Classroom Instruction and Student Learning: A Study of Mediated Pathways to Learning." *Educational Administration Quarterly*, vol. 48, no. 4, 2012, pp. 626–663.

Shivers, Eva M. "Early Education Emergent Leaders Program Evaluation Report Prepared for Southwest Human Development." Phoenix, AZ: Indigo Cultural Center, 2012.

Sims, Margaret, and Manjula Waniganayake. "The Role of Staff in Quality Improvement in Early Childhood." Journal of Education and Training Studies, vol. 3, no. 5, 2015. doi:10.11114/jets.v3i5.942.

Sims, Margaret, Rhonda Forrest, Anthony Semann, and Colin Slattery. "Conceptions of Early Childhood Leadership: Driving New Professionalism?" *International Journal of Leadership in Education, Theory and Practice,* vol. 18, no. 2, 2015, pp. 149–166.

Smith, Sheila, Veronica Benavides, and Faith Lamb-Parker. "New York City Pre-K Leadership Study." New York, NY: Bank Street College, April 2019.

Spillane, J. P., R. Halverson, and J. B. Diamond. "Investigating School Leadership Practice: A Distributed Perspective." *Educational Researcher*, vol. 30, no. 3, 2001, pp. 23–28.

Talan, Teri N., Paula J. Bloom, and Robyn E. Kelton. "Building the Leadership Capacity of Early Childhood Directors: An Evaluation of a Leadership Development Model." *Early Childhood Research & Practice,* vol. 16, no. 1–2, 2014.

Talan, T. N., and Bloom, P. J.. *Program Administration Scale: Measuring early childhood leadership and management.* NY: Teachers College Press, 2011.

Wang, M., and D. Ho. "Making Sense of Teacher Leadership in Early Childhood Education in China." *International Journal of Leadership in Education, Theory and Practice,* 2018. doi:10.1080/13603124.2018.1529821.

Whalen, Samuel P., Heather L. Horsley, Kathleen K. Parkinson, and Debra Pacchiano. "A Development Evaluation Study of a Professional Development Initiative to Strengthen Organizational Conditions in Early Education Settings." *Journal of Applied Research on Children: Informing Policy for Children at Risk,* vol. 7, no. 2, article 9, 2016.

Whitebook, Marcy, Elizabeth King, George Philipp, and Laura Sakai. "Teachers' Voices: Work Environment Conditions that Impact Teacher Practice and Program Quality." Berkeley, CA: Center for the Study of Child Care Employment, Institute of Industrial Relations, University of California at Berkeley, 2016.

Connect with OPRE

FOLLOW US >