



Research Addendum

Validated research regarding high quality early learning



Texas 
Rising Star

TABLE OF CONTENTS

Category 1: Director and Staff Qualifications and Training	2
Education and Experience Relate to Quality Caregiving	3
Ongoing Professional Development	7
Supportive Work Environments Support a Quality Workforce	9
Category 2: Teacher-Child Interactions	11
Warm and Responsive Style	12
Language Facilitation and Support	17
Play-Based Interactions and Guidance	25
Support for Children’s Regulation	29
Instructional Formats and Approaches to Learning	35
Category 3: Program Administration	37
Family Education and Involvement	38
Building Shared Expectations and Family Capacity	40
Building Families as Joint Decision-Makers and Problem-Solvers	44
Program Management	45
Planning for Special Needs and Respecting Diversity	48
Nutrition and Health	50
Curriculum	53
Bringing Together the Texas Rising Star Guidelines for Curriculum into Classroom Planning	55
Category 4: Indoor/Outdoor Environment	56
Indoor Learning Environments	57
Outdoor Learning Environments	64
References	69

Director and Staff Qualifications and Training

It is now well documented that early childhood caregivers are key influences on children's development on a day-to-day and moment-by-moment basis (Blewitt et al., 2021; Bratsch-Hines et al., 2020; Smidt & Lehl, 2018). This understanding—that caregivers can have a profound effect on young children's developmental outcomes—has given rise to new expectations for caregiver education and experience as well as best practices in the industry (Eadie et al., 2022; Donoghue, Council on Early Childhood, 2017). The focus on caregiving quality—across child care and preschool settings and across preschool and K–12 classrooms—emphasizes experiences that are supportive, stimulating, and nurturing to young children.

The standards that seek to define quality child care and quality classrooms reflect high expectations for those charged with the day-to-day caregiving in those environments. The primary purpose of early childhood education is to support the children's social, physical, and emotional well-being and learning (Fonsén et al., 2022). Yet early childhood educators must also attune to children's individual diversity of cultures, languages, and developmental differences (Gide et al., 2021). This vision of quality caregiving has enhanced the demands for professionalism by those working in various caregiving settings and has linked the concept of a caregiver to the broader idea of educator (Schaachter et al., 2021).

High expectations of quality caregiving are grounded in an effort to put children and their needs first (U.S. Department of Health & Human Services [HHS], Healthy People 2030, n.d.). Research points to the clear economic and social benefits that occur when children receive coherent and consistent high-quality experiences across settings and across the ages (Cannon et al., 2017; Hahn & Barnett, 2023). Yet, as the vision of quality experiences for children becomes more entrenched, it is critical that there are mechanisms in place to ensure clarity of expectations and systems of support for early childhood educators.

“ Attracting, retaining, and supporting a system of caregivers is considered by many a necessary first step on the pathway to high-quality care. ”

(Lux et al., 2023; Totenhagen et al., 2015)

Although there is general agreement on the importance of highly qualified early childhood educators for children, there is less consistency in what it means to be highly qualified. However, across research and leading policy positions, there are a few clear principles related to early childhood educator training and preparation that are important to consider. These include three key ideas: 1) education and experience are related to high-quality caregiving; 2) ongoing professional development is supportive of high-quality caregiving; and 3) a high-quality work environment—defined by evidence of well-developed workplace policies and practices, leadership support, and intentionally directed staff education—is critical to a stable and high-quality system of caregivers. (Lin & Magnuson, 2018; Brunsek et al., 2020). These principles underlie the Texas Rising Star measures for the category Director and Staff Qualifications and Training. We will consider each of these principles in turn.

Early Childhood Educator Training and Preparation Principles

Education and
experience

Ongoing professional
development

High-quality work
environment

(Lin & Magnuson, 2018; Brunsek et al., 2020)

Education and Experience Relate to Quality Caregiving

Education, or a caregiver’s formal educational attainment, as well as experience, or related professional experiences caring for and/or teaching children, work together to build caregiver knowledge and skills. Caregivers who are knowledgeable about children’s development

and who have training on the tools and methods of educating young children are more effective in supporting young children's outcomes (Manning et al., 2017). Knowledgeable and trained caregivers are more likely to support children's explorations, model and scaffold children's thinking during learning experiences, and respond to children in ways that shape and direct their contributions (Mihai & Classen, 2023). These aspects of high-quality caregiving are not seen consistently in the classroom but are among the most important aspects of an effective early childhood program (Donoghue et. al, 2017). The question is—what type of educational credentials are necessary to suggest an early childhood educator will be knowledgeable and skilled? This question has traditionally been one of the most debated topics in child care and early education (Institute of Medicine and National Resource Council, 2015).

Despite the emphasis placed on the importance of early childhood education teachers, there has not always been a consensus on whether caregivers must have a formal degree to be considered qualified. A 2011 policy position by the national institute for early education research (NIEER) questioned whether a bachelor's degree, in and of itself, is sufficient evidence that a person is qualified to support children's learning and development in a structured setting (Whitebook & Shannon, 2011). Over the years, however, more research on how children's brains learn and how their learning relates to the quality of early childhood teachers has meant an increase in recommendations and requirements for those teachers to have bachelor's degrees (Huss-Keeler, 2019). In comparison to its 2011 policy position, NIEER's recent 2024 "Benchmarks for High-Quality Pre-K" tool includes a minimum of ten policy benchmarks needed for highly effective preschool programs. Of the ten benchmarks, three have to do with levels of education: bachelor's degrees and specialized training in pre-k for teachers, and child-development associate (CDA) credentials for assistant teachers.

Efforts to raise the quality of early childhood education have often focused on the teacher's level of education, but there is recognition that many other factors affect classroom outcomes (Eadie et al., 2022). Those factors include:

- The educator's child development content knowledge and preparation (Beisly & Lake, 2020)
- Family income (Bakken et al., 2017)
- Family engagement (Murphy et al., 2021)
- Care setting: home-based or center-based (Ang et al., 2017)

- Special-education supports for dual-language learners or children who have disabilities (Moran & Sheppard, 2022)
- Child care workforce compensation (Center For The Study Of Child Care Employment (CSCCE), 2020), and
- Staffing shortages (McDonald et. al, 2018), which were exacerbated during and after the COVID-19 pandemic (Urban Institute, 2021).

Education, however, is still seen as a key factor in the early childhood field. Head Start, the Department of Health and Human Services-funded program that prioritizes school readiness, health, and well-being for children through age 5, served more than 800,000 children and families through child care centers and family child care homes in 2022 (Head Start, 2022). As of 2016, all Head Start directors and education managers are required to have at minimum a bachelor's degree. As of 2013, no fewer than 50% of all teachers nationwide in center-based programs are required to have a bachelor's or advanced degree (or coursework equivalent) in early childhood education. The requirements were adopted in the expectation that higher levels of teacher education would improve the quality of instruction in Head Start programs. As of 2017, 70% of Head Start teachers possessed a bachelor's degree in early childhood education or a related discipline (NAEYC, n.d.).

It has been statistically established that higher teacher qualifications are associated with more positive outcomes in early childhood education (von Suchodoletz et al., 2023; Schoch et al., 2023; Manning et al., 2017). A teacher's degree level is not an absolute predictor of a quality classroom, but research has indicated teachers with bachelor's degrees or higher have classrooms of higher quality than teachers with only high school diplomas or GEDs (Lin & Magnuson, 2018). Understanding broad child-development theories and knowledge of applied practices grounded in such theories is critically important; one of the primary aspects of quality child care is specialized child-development content knowledge appropriate to the age of the child (Beisly & Lake, 2020). The combination of theory and pedagogy is needed to support the caregiver's application of knowledge and reflection on their practice (Ellis & Hammer, 2023; Saracho, 2021).

A second important area of knowledge for quality caregiving is domain-specific knowledge related to math, language, and literacy (Dunekacke & Barenthien, 2021; Bruns et al., 2021). Standards of quality child care and classroom settings emphasize the importance of caregivers being able to weave domain-specific knowledge into developmentally appropriate experiences across all content areas (NAEYC, 2020). Caregivers need a solid background in domain-specific

subjects, particularly around children's developmental progression in those areas, paired with an understanding of assessment and curricula, in order to adequately support children's learning and achievement as they develop (Bakken et al., 2017).

Relevance to Texas Rising Star

The measures within Texas Rising Star reflect the latest thinking around educational requirements and staff qualifications. Importantly, the points-based measures of Texas Rising Star recognize the importance of early childhood educator formal education but acknowledge the viability of multiple pathways toward becoming a qualified educator, whether that is a B.A., A.A, CDA, or a combination of some higher education coursework and experience. This flexibility around specific educational attainment is paired with an emphasis on early childhood educators having specialized knowledge. While formal credentials and levels of education are valued, Texas Rising Star acknowledges numerous pathways and other factors that make up a qualified educator. Although there is no mandated set of courses educators must complete, Texas Rising Star points directly to the importance of coursework in early education and child development, as well as related fields.

Texas Rising Star points-based measures recognize the importance of early childhood educator formal education but acknowledge the viability of multiple pathways toward becoming a qualified educator, whether that is a B.A., A.A, CDA, or a combination of some higher education coursework and experience.

The Texas Rising Star requirements and points-based measures also speak to the importance of ongoing professional support and a workplace context in which there is support and leadership for ongoing learning. These aspects of education and staff qualification will be discussed in subsequent sections.

Ongoing Professional Development

Professional development can refer to in-house training or externally provided training that occurs within the context of early childhood educators' professional environments (i.e., work environment, professional conference, etc.). Professional development can refer to a single event (e.g., a day of in-service support) or ongoing training (i.e., a semester-long coaching program); however, it is distinguished from the broadly organized and more systematic formal educational experiences that early childhood educators may have in pursuit of a degree.

Effective professional development is a means of providing those in the field contextualized and immediately applicable knowledge, ongoing support and mentorship, and/or feedback with individualized support. Professional development should be seen as a system of program infrastructure that, when combined with caregiver qualifications, often can predict the level of quality caregiving (Schachter et al., 2019; Pianta et al., 2017; Snyder et al., 2015).

The ways that professional development is structured, organized, and assigned are critical factors in determining its effect on the quality of caregiving. Historically, little time or resources have been dedicated to ongoing professional development (Gomez et al., 2014). Single-session professional development events, with little to no follow-up or application, are common and yet consistently show little or no relation to improving classroom outcomes (Pianta et al., 2014).

Recent research points to several models or approaches to professional development that have been shown to be effective (Elek & Page, 2018; Brunsek et al., 2020). Although the specific approaches differ and should differ depending upon the skills or knowledge being acquired, there are some shared characteristics to consider. First is that the professional development is ongoing and coherent over time.

Professional development is most effective when it results in an extended cycle of learning, observing, doing, refining, and doing again, as often occurs within coaching or mentorship models (Elek & Page, 2018). Access to resources, such as video- or web-related resources that allow participants to see and reflect upon real-world examples in a consistent and ongoing way, is also supportive of learning and change (Heard & Peltier, 2021). This type of ongoing support allows caregivers to deeply process new information. When professional development opportunities involve learning over time, with components of reflection and practice, early childhood educators are able to synthesize new ideas and skills (Linder et al., 2015; Pianta et al., 2014). This synthesis

establishes new behaviors, which in turn influence the day-to-day of the classroom or caregiving environment. Professional development over time recognizes that real change and learning take time. Research also shows that successful professional development programs may differ between individuals to address diverse teacher characteristics, such as level of education, age, income, and geographic area (Jackson, 2023; Schachter et al., 2019).

Another characteristic of effective professional development is its focus on both behavior and knowledge (Obee et al., 2022). Some of the more promising professional development has combined the implementation of curricular tools with coaching and teaching (Jensen & Rasmussen, 2018). The use of evidence-based curricular tools can support early childhood educators in providing specific, developmentally powerful experiences to children (McLeod, 2019). However, the extent to which caregivers can use those tools effectively—meaning with intensity and blended with broader high-quality caregiving behavior—varies (Hooper et al., 2022). When professional development helps caregivers learn a specific technique for a specific group of children, change can be significant and sometimes rapid (Elek et al., 2021). When early childhood educators were affected by a high level of workplace stress—such as that caused by high job demands combined with low autonomy or resource levels—the effects of professional development were found to produce higher positive results in child outcomes (Hanno et al., 2021).

Relevance to Texas Rising Star

The measures within Texas Rising Star emphasize the importance of ongoing, guided, and multiformat professional development. Each early childhood educator is to have a clear plan for professional development that is used to guide the individual's specific activities. Although Texas Rising Star does not demand that the hours of professional development are organized in a particular way (e.g., distributed over time vs. within a workshop), it does suggest a balance of in-house vs. externally provided professional support, as well as a balance of in-person vs. independent or offline experiences. Texas Rising Star also emphasizes the importance of focusing professional development activities to be specific to the ages or needs of the children being served. In this way, Texas Rising Star creates a flexible structure for professional development and yet mandates a level of intentionality and focus that is consistent with the research literature. Texas Rising Star also mandates that programs set aside a fairly significant amount of time toward professional development. The specific number of hours demanded for both staff and directors reflects the understanding that professional development is a powerful and necessary tool to maintain quality caregiving. In fact, Texas Rising Star's emphasis on director qualifications and

ongoing training supports the idea that mentorship support and mentorship culture are important to the quality of early childhood educators. The importance of leadership and organizational culture to quality caregiving is discussed in the next section.

Texas Rising Star’s emphasis on director qualifications and ongoing training supports the idea that mentorship support and mentorship culture are important to the quality of early childhood educators.

Supportive Work Environments Support a Quality Workforce

The organizational environment in which caregivers are expected to work is essential to retaining and developing a high-quality workforce. Indeed, turnover is one of the most detrimental forces affecting high-quality caregiving (McMullen et al., 2019) because it jeopardizes the relationship children have formed with caregivers. Turnover also impedes ongoing supports designed to cumulatively build quality caregiving skills in staff, such as professional development. In 2019, 33% of early childhood care centers had high turnover, defined as more than 20% of a center’s teachers leaving in one year (Amadon et al., National Survey of Early Care and Education [NSECE], 2019). Centers with the highest turnover were independent for-profit centers (45%) and members of a franchise/chain (47%). Those with the lowest rates of turnover were centers run by the government (20 to 24%). Although low wages and other job opportunities are often seen as the primary reasons for turnover in child care and child welfare professionals, job satisfaction and aspects of the work environment are important factors in the decisions of those who stay (Hur et al., 2022, McMullen et al., 2020, McCormick et al., 2021).

A strong leader is one of the defining characteristics of a supportive and satisfactory work environment. Two of the most discussed aspects of leadership include supportive mentorship and administrative supervision (Mutoharoh et al., 2023, Fonsén et al., 2022). The mentorship that a leader provides creates an important bridge for caregivers between their specific day-to-day tasks and the broader goals of the child care experience (Ellis et al., 2023). A leader who builds

mentorship into the work environment connects staff to the mission of high-quality caregiving through workplace activities and structures (Ondieki Bosire et al., 2023; Kinkead-Clark, 2017). For example, studies of workplace satisfaction note that caregivers in a supportive work environment feel there is a director who is observing and supporting their professional growth and performance and actively discusses this with them (Gibbs, 2020; Perlman et al., 2019). Mentorship within an organization also goes beyond the role of the director. For new caregivers, a type of workplace induction—often by more experienced colleagues—is seen as a particularly important practice to establish a broad culture of mentorship or support (Simsar & Dogan, 2020; Recchia & Puig, 2018). In fact, as caregivers have access to systems of technical and emotional support, the organizational structure appears to buffer many of the challenges of the job (Staniece et al., 2022).

Administrative supervision differs from mentorship but also appears to be an important aspect of a high-quality and supportive work environment. Administrative supervision creates a managed work environment where issues of work overload, scheduling, and day-to-day needs, such as needs for materials or completion of paperwork, are actively addressed. In a well-managed work environment, there are regular practices for orienting and socializing new staff (Hewitt & La Paro, 2019) as well as clear practices around budgeting, staffing, hiring, and planning (Kristiansen et al., 2021). Underlying a managed work environment is a manager who is able to view the caregiving system as a business and manages the organizational tasks related to that business with expertise (Moshel & Berkovich, 2021).

Relevance to Texas Rising Star

The measures within Texas Rising Star emphasize rigorous director qualifications and place value on having an overall highly qualified staff. The requirement that directors are highly qualified educators who also have some background in administration and management is consistent with the type of leadership that is seen as being important to a high-quality work environment. The recognition that all staff within a program may not be highly qualified acknowledges the reality of the available early care and education workforce. However, the value placed on having high percentages of qualified staff recognizes the latest thinking about workplace quality and the role that colleagues may play in creating a supportive and learning-oriented environment. Further, the specificity around staff orientation, as well as training and ongoing professional development, suggests the value of professional workplace practices and points toward the value of professional training and mentorship relationships.

Teacher-Child Interactions

One of the most important aspects of high-quality caregiving is in the nature of the moment-by-moment interactions that an adult has with a child (Smidt & Lehl, 2018). Children learn to navigate the world around them and navigate their own internal world of thoughts and feelings with the guidance and modeling of adults in their everyday environments. There are specific ways that teacher behaviors can promote positive interactions and positive growth in children. These include a warm, responsive, and supportive style, support for language and learning, support for children's behavior and organization, and support for children's play and autonomy (Bratsch-Hines et al., 2020; Perlman et al., 2016). These dimensions of early care and education reflect processes that occur between adults and children on a moment-by-moment basis. The extent to which these aspects of high-quality behaviors are evident and consistent—across activities, times of the day, and a diverse classroom of children—define a high-quality environment (Langeloo et al., 2019).

There are also many aspects of the early care and education environment that have an indirect influence on children. These are often called structural aspects of caregiving quality because they tend to be requirements about the physical space of the caregiving environment, requirements about caregiver qualifications, or requirements about child-adult ratios and class size (Perlman et al., 2017; NAEYC, n.d.; Bonnes Browne et al., 2017). Research suggests that these structural aspects of early care and education quality are important largely because they help foster high-quality processes or interactions between adults and children; for example, open space and cubbies contribute to a positive environment (Berti et al., 2019; Sando, 2019). In other words, these structural requirements contribute to children's well-being while encouraging development and activity. Taken together, it seems that the most comprehensive approach to defining a high-quality environment for young children is to provide both structural requirements and an emphasis on high-quality adult-child interactions (Berti et al., 2019; Sando, 2019).

Texas Rising Star has process measures that reflect well-accepted dimensions of high-quality teacher-child interactions. The measures related to group size and adult-child ratios are used as parameters of high-quality caregiving environments and are present across state programs, Head Start, and private programs. While there is limited research that links group size and staff ratios to better child outcomes, researchers and policymakers estimate that these requirements moderate process indicators such as teacher-child interactions by providing the teacher with a more manageable number of children. For example, a teacher who is responsible for fewer children is more likely to respond warmly, be able to scaffold learning (Deshmukh et al., 2022), and have meaningful conversations on a more frequent basis with each child.

The remainder of this section will expand upon the rationale and importance of measures including Warm and Responsive Style, Language Facilitation and Support, Play-Based Interactions and Guidance, Support for Children's Regulation, and Instructional Formats and Approaches to Learning.

Warm and Responsive Style

Warm and sensitive caregiving is seen as one of the most important aspects of a pro-social and high-quality caregiving environment (Eshelman et al., 2021; Futterer et al., 2022). Warm and sensitive caregiving helps support the building of strong relationships between the caregiver and children and this, in turn, creates a safe environment for children to explore and learn (Blewitt et al., 2021; Haslip et al., 2019). Sensitive caregiving and a strong relationship are seen to promote young children's ability to function socially in a classroom—promoting cooperation, peer relations, adaptability, and engagement (Brock et al., 2018). Research in infant and toddler care has determined that sensitive and responsive teacher-child interactions positively affect the development of language, social-emotional, and cognitive skills (King et al., 2016). A warm and sensitive classroom environment is also seen as a protective factor against adverse outcomes such as problem behaviors (Bulotsky-Shearer et al., 2020; Wiltshire, 2023; NAEYC, 2020). When young children have early experiences marked by warm and sensitive caregiving, research shows evidence of benefits in the future (Chernicoff & Labra, 2024; Baardstu et al., 2022).

The lasting influence of positive early care and education experiences speaks to the power of early childhood and the importance of sensitive caregiving. Let's consider an example of what warm and sensitive early care and education may look like in an early childhood classroom:

A teacher is smiling at the children who are on the rug. She is sitting in a chair low to the floor and children are spread out around her. Some children are sitting cross-legged, a few are lying on their sides with their elbows propping them up. One child leans against a cabinet. All children appear generally attentive and the teacher does not comment on the varied sitting styles. A number of children are quite close to her and a few are touching her knee or leg. One of the children closest to her is leaning against her. Smiling warmly at the group, she holds up two fingers in a signal for everyone to get quiet. Fairly quickly the majority of the children do the same signal and, as each child quiets down, she compliments each by name.

She lightly touches the shoulder of one girl who is having trouble getting quiet and, as she settles, the teacher starts off the circle time with a little chant all the children know. Some children do the little gestures with the chant, some don't, and some don't say all the words but are following along. The teacher makes eye contact around the room, smiling and accepting the different ways the children participate. She lets the children know she has a new book to share. She introduces the book and notices the excited look between a few children and notices that one child sitting at the back is pouting.



She says in a light tone, "Well, I see some are excited and some may be a little disappointed by today's book!" She smiles at the girl who is pouting and sings to the class, "In some ways we are different. But in so many ways, we are the same" (a familiar jingle for the class from a popular children's show). She says, "I bet we can each find at least one thing that we like in this book as we listen." The song makes the girl smile and the caregiver continues to introduce the book to the class.

In this very brief look at a classroom, it is evident that this teacher has a warm and sensitive early care and education quality. This teacher demonstrates enjoyment of the children in her classroom and displays multiple nonverbal signs of closeness and acceptance (eye contact,

shared proximity/physical closeness, shared smiles). She shows support for individual styles of participation (allows children to sit as they are most comfortable, accepts varied ways of participating during the chant). She shows patience with the children as they work to settle down (using signals and routines, but not moving toward negativity or demands/threats). She is attuned to varied signals from the children and acknowledges these signals with sensitivity and humor. Although she couldn't "fix" the young girl's disappointment in the book choice, she was able to respond in a way that was attuned to her state. The use of the song was a judgment the teacher made to help move the child toward a more positive feeling, which would, in turn, allow her to be more willing to engage in the book reading.

What research finds, however, is that not all classrooms display high levels of warm and sensitive early care and education. Although most classrooms are not overly controlling or harsh environments, research shows that children's school-readiness skills are affected by the quality of teacher-child interactions (Hatfield et al., 2016). In mid-range classrooms, we can imagine shifts to the scenario painted above that are meaningful to young children.

A teacher is smiling at the children who are on the rug. She asks all the children to sit upright and cross-legged. It takes some time to get all the children in this position as a few of the "wiggly" children are resistant. She asks the children who are leaning against her to sit up and she puts some physical distance between her and these children by moving into a chair. Correcting the sitting position of certain children takes time and, as it is happening, other children begin talking. To gain everyone's attention, the teacher holds up two fingers—a signal that she uses to try to calm the classroom. The children are distracted and not all are responsive immediately to her gesture, so she offers a warning in a somewhat impatient tone (but not overly harsh) that they will not have time for the book if they can't settle down. One child tries to explain that he wants to lean against the cabinet as he likes to sit that way, but she cuts him off before he finishes speaking and says in a sing-song voice that she is asking everyone to show they are ready by sitting up and not talking. She does not make eye contact with the little boy who spoke up. She seeks to facilitate the "getting-ready" process by putting her focus on the children who are not yet listening, calling out their names and saying, "We are waiting..." When everyone is settled, she begins the morning-circle chant. Her tone is upbeat and she smiles at the children as she starts the chant, but the smile is not shared by all the children and does not feel entirely genuine. During the chant she scans the room to ensure all are fully participating and gives a look and a head shake at children who are not doing the gestures to indicate that she expects their cooperation. She gestures for the little boy who had wanted to sit against the cabinet to sit back up, as he is wiggling/starting to lie down.

After the chant she says, “Hmm... I think we can do better. Not everyone was with us. Let’s try again and let’s all do the hand gestures.” The children are compliant but are not necessarily all demonstrating enjoyment during the chant redo. After the morning chant, she lets the children know she has a new book. She introduces the book and notices the excited look between a few children and notices that one child sitting at the back is pouting. She says, “I really like the enthusiasm of Jonah and Tobias,” and gives them a big smile. “Let’s see if we can all try to be positive. Julia, let’s not pout. I am sure you will be able to find something you like in this book, don’t you think?”

In this scenario, the teacher is more controlling and less accepting of the varied perspectives and needs of the children in the classroom. This teacher does offer smiles and praise, but these tend to be for compliance and for children who fit her conception of what is “right” rather than being a true gesture of warmth and acceptance for individuals in the classroom. There are low levels of disrespect for children, shown by publicly correcting a child for her feelings and cutting off another child when he was speaking. It is easy to imagine that, once in a while, this type of interaction would occur in a classroom of young children. However, if this is the normal or prevalent pattern of interaction between the teacher and children, the differences are meaningful. This type of controlling and demanding style could also lead to a somewhat negative pattern throughout the morning-circle activity. For example, it is likely that children who were “called out” may become less cooperative or engaged and require ongoing correction; high demands for compliance could mean the caregiver may become increasingly impatient or harsh if children cannot meet these demands. This teacher’s approach shows an emphasis on moving children, quickly, toward the “right” behaviors, at a cost of supporting their self-regard, self-confidence, and individual needs.

This type of mid-level sensitivity and warmth—when the caregiver is not harsh or mean but lacks sensitivity to individual needs and developmental tendencies—is not uncommon. The quality of early childhood education programs varies greatly, which means children have vastly different learning experiences (Eadie et al., 2022; Ansari, 2018). Unfortunately, in some classrooms it is more likely to find patterns of interaction that are harsher and more controlling than that painted above. In such classrooms, teachers would rarely compliment children, few smiles would be noted, and correction and harsh or disrespectful tones would be prevalent.

Not only are warmth and sensitivity linked to positive outcomes in general, research has also shown that high-quality caregiving in the form of sensitivity, responsiveness, and cognitive stimulation in the first five years of life is associated with success in high school in science, technology, engineering, and mathematics (STEM) settings, particularly with children who come

from lower-income backgrounds (American Psychological Association, 2023). This is especially notable as studies have shown that children born into poverty and/or race/ethnic minority families disproportionately experience poor-quality child care and have greater odds of not being ready for school than those not born in poverty (National Institute of Child Health and Human Development [NICHD] 2006). This research is still cited today on how differences in quality of child care affect children's development (NICHD, 2006; Bustamante et al., 2021; Roos et al., 2019).

Collectively, the evidence suggests it can be a challenge to constantly provide warm and supportive care to young children, and that building such classrooms begins with supporting teachers and ensuring they have the skills, knowledge, and working conditions to meet the challenge.

Relevance to Texas Rising Star

The measures within Texas Rising Star emphasize the value of warm and supportive interactions between teachers and children and define critical behaviors that comprise such interactions. The key behaviors that mark warm and sensitive early care and education within the Texas Rising Star measures are the same as were highlighted in the scenarios and research review just presented. The Texas Rising Star measures emphasize the importance of a warm and safe environment (seen in the scenario through consistent use of positive tones, lack of harsh tones); use of nonverbal behaviors for acceptance (seen in the scenario by physical proximity, touch, shared smiles); a patient, relaxed style (seen in the scenario with patience and with settling-down routines); awareness of children's signals (seen in the scenario by awareness of reactions to a book and willingness to engage children); prompt response to affective signals (seen in the scenario through the teacher's attempt to lightly support a young girl's disappointment with a song/hopeful message); and flexibility in attitude (seen in the scenario by tolerance for children's movement and tolerance for varied levels of participation).

The Texas Rising Star scoring allots higher scores in these areas when warm and sensitive early care and education is seen consistently and is not tempered by more negative behaviors, such as the presence of harshness, anxious caregiving, impatience, or lack of awareness of children's needs.

Language Facilitation and Support

Children are hard-wired to pay attention to adult language and mirror the language they hear (Phuong, 2022; Klinger et al., 2016). The language of children's everyday environment has an incredible influence on their development (Anderson et al., 2021; Feldman, 2019.) In fact, young children are so sensitive to differences in the language of their everyday environment that major gaps in vocabulary and language processing are evident by age 18 months (Colker, 2014) between children from affluent homes and children living in poverty. Children from lower economic homes were accomplishing at 24 months what children from higher economic homes were doing by 18 months (Colker, 2014). In fact, researchers found a "30-million-word gap" in 3-year-olds who lived in lower socioeconomic conditions compared with their peers in higher socioeconomic conditions. (Hart & Risley, 2003). The study followed 42 families—13 wealthy, 10 middle-class, 13 low-income, and 6 using public assistance—and observed them monthly, starting when the children were 7 to 9 months old and ending at age 3 years. The researchers observed that by the time the children were 3, their vocabulary, amount of talk, and style of interaction were "well established and clearly suggested widening gaps to come" (Hart & Risley, 2003). Though the study is older, it continues to be cited today, with 278 references since 2019.

Later research backed up this differential (Gollinkoff et al., 2018), though there has been some criticism of the original sample size. By preschool, these differences have cascaded into major differences across language milestones, and by school entry, children from language-rich environments know thousands of more words when compared to children from less language-rich environments. Notably, these early differences in development can continue affecting children's academic and social trajectories 10 years later (Gilkerson et al., 2018).

To accelerate children's language development, research finds it is critical for early childhood classrooms to provide intentional and frequent opportunities for language support and stimulation (Duncan et al., 2023; Yang et al., 2021). In language-rich classrooms, talk becomes the primary tool to help children navigate socially and cognitively. Facilitated conversation during social activities—such as lunch or play—can be a means of providing children labels for things in their everyday environment and help children learn social routines of conversation. Opportunities for extended conversations during learning circles or shared book time expose children to complex language forms and vocabulary that are not present in everyday conversation (Hansen & Broekhuizen, 2019; Cutler et al., 2022). Such opportunities also help teach children ways

of using language for complex thinking and complex academic-like tasks. Indeed, capacity for such academic language use is one of the most distinguishing features in the language skills of advantaged vs. disadvantaged children, or those children entering school ready to learn vs. those who are not (Logan et al., 2023; Yang et al., 2021). In a high-support classroom, language is used intentionally to build children’s concepts, routines, and self-esteem. Let’s consider a snapshot of a small group activity:

The teacher is sitting at a table with a small group to help facilitate a hands-on art activity. The activity involves creating a picture from a book that they just read. The teacher begins by having the children help him remember key facts from the book as a way to spark their ideas and reinforce vocabulary from the book during the art activity. This is an excerpt of the conversation that is occurring during that activity.

- Teacher:** (Holding up the book): We read this book earlier today. Who remembers it? (Children say yes, nod, and raise hands.)
- Casey:** There are purple, and blue, and yellow days!
- Teacher:** Oh yes, Casey remembers—you must have really enjoyed this book! The book was called “My Many Colored Days” (by Dr. Seuss). In it we learned that we can have lots of different moods and feelings on different days. Let’s see (turning to the purple page). Reading: “On a purple day, I am sad.” I see a dinosaur here walking alone. Does anyone remember what he does?
- Casey:** He groans and drags his tail.
- George:** He is hanging his head and walking away.
- Teacher:** Oh yes! He groans and drags his tail as a way of showing he feels down or sad. George, you noticed his body language. He must feel very sad and slow to hang his head like that. Has anyone ever felt like that?
- Lots of children:** Yes! (And many act like a dinosaur walking sad and slow.)
- Casey:** Yesterday, I couldn’t have my favorite dress on because it was dirty. And I felt sad and slow and purple! (Giggling)

Teacher: Oh yes, I remember that morning. Casey came in and told me she couldn't wear her favorite dress.

Tim: I am purple and slow when my sister won't play with me.

Elias: Purple and slow now! (Giggling)

Teacher: We all feel purple sometimes, don't we? We also feel lots of other colors too! In fact, sometimes our purple day lasts all day and sometimes, poof, something changes, and we are at another color. (Turning to another page) What do you see on this page? (Multiple children shout out various colors.)

Teacher: Wow! You are all so observant today! The book says that after any day or any mood, "I go back to being me." And I am lots of different colors! We can go from slow and purple to pink! And happy! Elias said he was purple and slow but then he laughed and—poof. What did you become, Elias?

Elias: Pink!

Teacher: How did you become pink?

Elias: Because I laughed (Giggling).

Teacher: I had a pink day the other day when I got a card from my best friend in the mail. I felt pink inside when I read his words.

Jennifer: We went ice skating and I was pink!

Teacher: Oh wow! Did you go ice skating last weekend with your whole family? How was that?!

Jennifer: Yes, we went ice skating down at the park downtown and I went, and Drew and Lilly and grandma and grandpa!

Teacher: Oh wow—your whole family went ice skating last weekend at the park downtown! That sounds fun!

Jennifer: And we all went on the ice, but my mom couldn't skate very well, and we got a bucket so we didn't fall and went around the ice.

Teacher: A bucket for balance! That's ingenious—so smart! I can picture you and your mom using a bucket to help you keep your balance when you went around the ice rink! That does sound like a pink day!

Jennifer: And it was a pink day because I had a pink coat on too!

Tamara: Me too, I have a pink coat too! (Girls giggle together.)

Teacher: (Smiling and flipping through the book) There are so many types of days. Look—the bright blue days—or a buzzy yellow day. (He goes slowly, pausing between page turns, and looking up to see whether children have something to share.)

George: A busy yellow day like a busy bee.

Teacher: Oh yes. George, why is a yellow day like a busy bee?

George: Bees are yellow and they buzz around busy!

Teacher: Yes, bees are yellow, and they are often quite busy gathering pollen to make into honey. George, what is a time you remember being yellow and busy?

George: I was a busy bee when I did my painting. I was painting and painting and painting.

Teacher: I remember your painting. It had all the colors on it, like a rainbow. Or like a many-colored day!

George: Yes, I made a rainbow painting like when a rainbow comes out after it rains!

Teacher: Yes, when it rains and the sun comes out, we sometimes get to see the many colors of the light around us in a rainbow. Well, we get to do another painting today. We will use these finger paints to make our own many-colored day. You can choose one color or choose many colors. Think of a day that you want to share and think of how you felt that day. Choose a color that matches how you felt on that day. After we do our paintings, we can tell each other what they are about.

The teacher walks around as children paint and comments on what he sees.

Teacher: Elias, I like the bright pink you are choosing to draw flowers. They look like bright pink daisy flowers with all the petals.

In this small group activity, the teacher is supporting children with varied levels of language. By having something physical that serves as a visual reminder of their conversation, he helps scaffold their listening/attention and provides a prompt to their expressive language.

Overall, the teacher's responsive conversational style allows the dialogue within the activity to be something jointly created by the teacher and children. This responsive conversational style is most evident by the fact that he almost never provides a short or single-word response to children. In fact, even his praise is lengthy and descriptive (e.g., when complimenting George's picture, he provides a rich description of it as being "like a rainbow"). Consistently, this teacher builds upon what children say to encourage multiple rounds of conversation. To build upon children's contributions within the discussion, the teacher repeats their ideas with a more sophisticated sentence structure/vocabulary ("Oh wow—your whole family went ice skating last weekend at the park downtown"), adds ideas and information ("Yes, bees are yellow and they are often quite busy gathering pollen to make into honey"), or follows what they say with a leading question ("George, what is a time you remember being yellow and busy?").

When asking questions, the teacher balances yes/no questions with more open-ended ones, often in a sequence, which is a helpful approach for first getting children to participate and then expanding upon answers they provide. The teacher not only draws out children's contributions through repetition and extensions, he also offers children complex language models and vocabulary. For example, the teacher intentionally infuses complex vocabulary into the conversation ("balance", "rink", "ingenious"). This type of intentional and contextualized vocabulary exposure is one of the most important ways young children come to know so many words so quickly (Zucker et al., 2021). Further, the teacher is focusing the conversation very intentionally around events that are not in the "here and now." So, even though he is using the book as a physical prompt for the discussion, he guides most of the talk toward children's experiences in the past and toward the cognitively complex idea of metaphor (i.e., colors stand for feelings).

The kind of talk that occurs when discussing the past, future, or abstract ideas is quite different than language used to navigate everyday routines (e.g., meals, cleanup, routines) and is an important type of language model for young children (Hadley et al., 2022).

The conversational approach the teacher took in the example was one of repeat, extend, and/or expand, and these behaviors are hallmark indicators of an environment with high language support (Towson, 2023). Unfortunately, the types of language-rich experiences illustrated in the example are quite uncommon within early childhood classrooms. Notably, even when teachers are using language-focused activities or curricula (such as shared reading or a language lesson) the quality of the conversations within those activities can be low (Yang et al., 2021; Seven, et al., 2020). These conversations tend to be one-way (caregiver-directed), short and lacking in cognitive complexity. The difference in the conversation in such low-support classrooms, as opposed to the high-support scenario described earlier, is quite notable (Yang et al., 2021).

Low-Support Scenario

The teacher has the children at their desks and is introducing an activity that they will do around a book they just read.

Teacher: (Holding up the book: We read this book earlier today—it was called “My Many Colored Days.” In a minute we are going to each paint our own colored day with whatever color, or colors, you would like.

Teacher: Let’s take a look back through the book to remember some of the colors and days.

Teacher: Blue (turning pages of the book to remind them of what they read/allow them to see the pictures), bright red, low-down brown, buzzy yellow . . .

Teacher: Let’s share the color you are feeling today. Jonah, what color do you feel like?

Jonah: Red.

Teacher: Elias, what color do you feel like?

Elias: Purple.

Teacher: Jennifer, what about you?

Jennifer: Pink.

- Teacher:** Great—we can all feel different colors. We can’t all share, so put down your hands, but you will get to show me the color soon when you paint.
- Teacher:** OK, so everyone can grab a paper plate and I will come around with the paints. You can let me know what color or colors you want. I will put some finger paints on your plate and you can use this to make your many-colored days. Ms. Magnum is also here to help.
- Teacher:** (After handing out paints and getting materials, walks around, says to various children): Great job! I like that! Hmm (for a child mixing together a lot of colors).

What is clearly evident in this scenario is that language is a functional tool to facilitate a language/literacy activity (i.e., craft around a shared book reading), but language development, itself, is not supported through the conversational interchanges within the activity. Unfortunately, it is the conversation around the activity, not the activity itself, which is the most important to children’s development. Yet, in this low-support environment, extended conversation is not promoted and, in fact, may be viewed as a distraction from the scheduled activity (doing an art activity related to a book reading). The questions that are asked are closed-ended (i.e., require one-word answers) and repetitive. Absent is a link between the talk around the activity and the higher-level ideas that the art activity is supposed to promote (i.e., the idea of feelings as colors and emotions being variable/changeable). It is also evident that in this environment, children’s contributions are limited. Children provide one-word answers to questions about their favorite color and there is nothing to suggest they are in the habit of offering more extended contributions. There is a lack of specific and rich vocabulary, and feedback is seen to be mostly evaluative (“hmmm”) rather than descriptive.

What is striking in classroom environments with low levels of language support are the missed opportunities. As seen in the low-support example, the teacher made attempts to elicit language, but these attempts fell short in many of the nuanced aspects of language facilitation promoted by research. Creating a language-rich classroom requires understanding of children’s language development (Houen et al., 2022), yet research shows that caregivers often are not trained in children’s language development or in the ways they might promote such development (Hindman et al., 2019). Increasingly, research points to the very subtle shifts that teachers need to make to enhance the quality of their language support to children. With respect to the low-support

example, if the teacher had asked even one or two of the children to describe why they selected the color they did when asked, that would reflect an important difference. It would reflect an attempt to provide children an open-ended question, or a question that children cannot answer in one word, and provides opportunity for more extended talk. It would also reflect an additional conversational turn. If the teacher had provided a description of a time he felt “like a certain color,” he would be modeling the complex language used to talk in the abstract and would provide a prompt that may elicit other children to share in the same way. The type of feedback or structure of the activity could also have been shifted to be more conducive to language support. For example, the teacher may have gone around and asked children to describe what they were painting and the feelings they are showing with their colors. He may have even written down some of what they said for a group discussion after the activity. These sorts of shifts still do not reflect the rich, deep conversations we might see in classrooms with high levels of language support, but they would reflect important improvements. In fact, research suggests that even small differences in quality for language and literacy support can have important effects on children (Walker et al., 2020; Obiweleozo et al., 2014).

Relevance to Texas Rising Star

The Texas Rising Star measures for Language Facilitation and Support highlight the value of a highly responsive conversational style and intentional language modeling. The indicators emphasize the value of consistent and intentional use of language facilitation strategies for lengthy conversations. The particular language facilitation behaviors promoted within Texas Rising Star are consistent with those discussed in the literature and illustrated in the examples above. These include positive language (seen in the positive and descriptive comment the teacher made about George’s painting as a rainbow), expansion of the children’s ideas (seen in the information he added about busy bees), communication throughout the day, attentive listening with clear responses to acknowledge contributions (seen in approach to the story about ice skating and throughout group discussion), use of questions to elicit talk (seen in initial questions about feelings and colors; questions about being “pink”), and intentional expansion of what children say (seen when he rephrases sentences with more detail or more sophisticated sentence structure, as with the idea of the family ice skating at the ice rink). The Texas Rising Star indicators for this measure also emphasize the value of language models, as seen by the use of specific labels/sophisticated vocabulary (seen in the teacher’s infusion of vocabulary) and extensions to what children say or to the topic being discussed (seen in his commentary about feelings being changeable across a day or many days). Importantly, the Texas Rising Star scoring approach emphasizes the idea that

language support needs to be infused throughout the day, not just occurring in isolated instances. Within Texas Rising Star, higher scores are provided when the use of language modeling and language facilitation occur often and consistently, rather than sporadically.

Play-Based Interactions and Guidance

Children's play, particularly pretend play, is a quintessential activity of childhood that is seen as important to language, social, cognitive, and emotional development (Yogman et al., 2018; Whitebread et al., 2017). Through play, young children engage in role play and scenarios, problem-solve, act out social ideas and relationships, and are able to practice and apply skills in a fun and joyful way (McClean et al., 2023). Play is seen as an important means of supporting symbolic development; as children play and allow objects or people to take on pretend roles, they are learning to allow one thing to stand for another (Mohan et al., 2022). This symbolic understanding is of central importance to children's language and literacy development and there are clear benefits of play to these areas (Flint, 2020; Yogman et al., 2018). As young children engage in the talk of play—whether to jointly problem-solve a puzzle, establish and enact a scenario or story circle, or discuss rules of a game—they are stretching and expanding language skills in important and unique ways (Flinn, 2024). Beyond language benefits, play also appears to be an activity that supports young children in developing regulatory abilities, such as inhibition and impulse control and capacity for sustained and directed attention (Foley, 2017; Kessel, 2018). This type of relationship makes sense as children must navigate complex rules and/or social situations during play; importantly, these regulatory skills have a direct relationship to children's school readiness and academic outcomes (Yogman et al., 2018; Pyle et al., 2022).

Research finds that some of the positive benefits of play can be enhanced when adults are present and supportive but not overly controlling (Pursi & Lipponen,



2018). Adults can be particularly supportive during pretend play when enhancing the maturity and length of play scenarios. For example, the extent to which young children use generic objects for specific scenarios (empty plates, pretending they have food; swaths of fabric, pretending it is a cape/gown/etc.), the extent to which pretend play involves multiple roles and people, and the extent to which there are rules to the play or scenario (stay in character; some children are the doctors and others the patients) are all signs of mature play. Also, flexibility within the rules (first they are doctors of people, now they are doctors of pets) is also a sign of mature play. These aspects of play—degree of pretend, rules, flexibility, and inclusion/multiple roles—require significant language and the capacity to extend and continue each other’s ideas. These can be difficult areas for young children and reflect areas in which adults can play a supportive role (Pursi & Lipponen, 2018; Skene et al., 2022).

High-Quality Scenario

Two young children are playing pet salon/pet wash. The teacher has joined the children, sitting on a low chair within the play area, but is initially sitting back and watching as they plan for the game. One girl is gathering things—a bucket, a brush from the baby toys—and is looking around. The teacher asks if she can help her find anything and the girl says she needs shampoo. The teacher knows there is not a shampoo prop but turns the question to the group. “Hmm . . . what could we use for the shampoo bottle?” A little boy comes back with a wooden ketchup and mustard prop from the kitchen and says “Here, these are bottles!” The young girl is considering this as an option and the teacher says “Oh! Strawberry shampoo and lemon conditioner. Won’t our pets love that?” The little boy pretends to smell the bottles, saying “Mmmm.” And the little girl takes the bottles, accepting these as part of the props. The little boy finds a stuffed animal and the little girl says, “I will be the one washing the pets and you bring in your dog.” The little boy has not gathered a dog but has a stuffed monkey, and they begin to argue about whether or not this is allowed. Although not directly interfering in their discussion, the teacher says, “Well, I bet monkeys have to get washed sometimes. I wonder where monkeys in the zoo go to be washed.” The little girl says “Oh yes! We can be washing pets at the zoo!” The little boy says, “I can be at the zoo, too!” The teacher, supporting their ideas and adding vocabulary to the conversation, says, “Wonderful, are you both zookeepers?” The children answer yes and Tamara (the young girl) assigns them roles. She will be working at the pet-care station and George is in charge of bringing the pets to her.

Teacher: George, what kind of monkey is that?

George: It’s a grey monkey like the ones we read about.

Teacher:

Oh! Is it a Rhesus monkey like we saw in the animal book? I wonder what trouble that smart little monkey may get into at the pet salon!

The children continue to play, acting out a scene where George brings the monkey in and asks for him to be washed. And the little girl engages in a washing scene while George watches. To facilitate some additional talk, the teacher asks if she can pretend she is a visitor to the zoo. She asks, “How did that monkey get so dirty?” George says the monkey was eating bananas and the banana got all over his face. Tamara joins and says that she notices bananas everywhere—even in the monkey’s ear! The teacher asks, “Do monkeys like to get their ears washed? I hope he doesn’t run away like the monkey in the book we read!” At this point, the children do not answer her, but talk to each other about an idea to pretend the monkey has run away because he doesn’t like getting its ear washed. The little boy “hides” a monkey under the table and he and the little girl engage in a pretend scenario where they are searching for the monkey. The teacher asks, “How are we going to find him?”

In this scenario, the teacher was a presence in the activity but was not directing the play. She builds off the ideas of the children and maintains a playful attitude that allows the children to expand the humor and fun of the scenario. For example, when the children were considering how to find a shampoo bottle, she models the use of imagination in play but does not direct them into specific roles or responses. Similarly, she does not interfere with the children’s discussions, or negotiations, about George’s choice of a monkey as a pet. Rather, she offers the children the model of how to respond in a flexible way and gives them the freedom to consider this guidance. Throughout the play scenario, she takes a language-rich approach to supporting their play and this approach simultaneously supports language development and scaffolds the maturity of the play.

For example, when she restates the children’s roles as “zookeepers,” the teacher is providing a sophisticated vocabulary word (that they are likely to use/repeat during their play) and this label also creates definition to the children’s roles within the adapted play scenario (adapted from pet salon to zookeepers). Similarly, her use of open-ended questions supports the children’s language use within the activity and also guides them to extend/expand the pretend scenario (Skene et al., 2022).

It can be difficult to balance involvement vs. directness within pretend play. Often teachers are in the role of play manager within open-ended play scenarios and/or are providing more directive help to play with objects (Skolnick Weisberg et al., 2016). Within this type of managerial role, talk during play can also be highly literal and directive, with an emphasis on praise, directions, or redirection of behavior. For example, it is easy to imagine shifts to the scenario just described, in which the teacher’s presence is more intrusive and/or managerial.

Mid-Range Scenario

Two young children are playing pet salon/pet wash. The teacher has joined the children, sitting on a low chair within the play area, but is initially sitting back and watching as they plan for the game. Tamara is gathering things—a bucket, a brush from the baby toys—and is looking around. The teacher asks what she needs and when Tamara says shampoo, the teacher says, “I know where an empty spray bottle is,” and finds that prop for her. The little boy finds a stuffed animal and the little girl says, “I will be the one washing the pets and you bring in your dog.” The little boy has not gathered a dog but has a stuffed monkey, and they begin to argue about whether or not this is allowed. The teacher attempts to facilitate this argument by directing the children toward an easy solution, “George, the pet salon would not allow a monkey. Let’s choose something different. What about this dog? Here is a leash. What do you think?”

The little boy takes the dog and the little girl tells George to pretend to bring the dog into the salon. Again, the teacher steps back to watch. The little boy brings the pet into the “salon” and answers the girl’s questions about the dog’s name, and whether he wants lemon or strawberry shampoo (his answers are primarily one-word answers). The little girl engages in a washing scene while George watches. The teacher participates by directing the little girl to comb the dog after washing it and says, “Don’t forget to dry him. That dog sure is wet!” She asks George, “Is your dog clean now?” and George nods. Tamara says, with a flourish, that she is done and George says, “Thank you,” and pretends to leave. The little girl tells the teacher it is now her turn to bring in a pet. The teacher acts out the same scenario as George, bringing in an animal and answering questions about the animal’s name and what shampoo to use. After this, Tamara tries to get George to bring in another animal. George says he doesn’t want to and walks away. The teacher tells Tamara she can keep playing pet salon but she has to check on some other children.

In this scenario, the teacher is seeking to join the play; however, her primary contributions are to redirect and manage the children’s behavior within the play scenario. Her role as manager reduces the opportunity for children to engage in problem-solving and discussion within the play experience and, thus, reduces the potential benefit of play to these areas of development. Her more directive style does not offer children the language modeling that might occur if she was more focused on building on children’s play. For example, rather than describing what Tamara might have been doing when washing George’s dog (thus infusing language modeling and reinforcement to her play), her guidance seeks to direct what Tamara does within the scenario. Although the teacher is clearly attempting to extend the children’s play with the directions she provides, her contribution is aimed at showing and solving for children, rather than guiding and

supporting with children. This can be seen in her emphasis on the accuracy or completeness of the pretend scenario. The teacher seems to feel her role is to help children “get it right,” rather than help children build autonomy, language, and problem-solving skills as they navigate the act of pretending.

Relevance to Texas Rising Star

The measures within Texas Rising Star related to Play-Based Interaction and Guidance recognize the developmental value of play to children’s regulatory, emotional, and language development. The behaviors emphasized within this measure point adults toward being active facilitators of children’s developmental attempts at play and seek to discourage overly controlling or managerial involvement in play activities. The key indicators within Texas Rising Star are similar to those illustrated within the example and include supporting a playful attitude (i.e., modeling and promoting play, seen by the teacher joining play and having clear time in the day for play), participating and expanding on play (seen by the teacher modeling sophisticated aspects of play, such as pretending about objects, flexibility in twists and turns of the play scenario, engaging multiple roles within the play scenario), and use of guidance rather than directive strategies to encourage play (seen by the teacher letting children make decisions and offering suggestions on how to problem-solve, but not directing the children to a solution). Higher scores are given for teachers that value play, offer language modeling and support during play, emphasize children’s autonomy and social development through play, and guide rather than direct when engaging with children.

Support for Children’s Regulation

Young children’s capacity to manage their feelings and impulses, sustain attention toward a task, cooperate with the classroom or activity rules and with peers, and organize behavior toward the completion of goals are all aspects of their self-regulation (Korucu et al., 2021). For young children to navigate the learning demands of the classroom, they are often drawing upon aspects of their self-regulatory skills (Savina, 2020; Hernández et al., 2018). For example, when a teacher seeks to transition children from one activity to the next, children must inhibit preferences to keep working in order to cooperate with these rules. When children are given time to navigate center time, they must direct their attention and focus their activities in a goal-oriented way. If children are

introduced to a new activity, they must focus on the directions and, possibly, manage emotions they may have about trying something new.

Thus, it is no surprise that children's self-regulatory skills are linked to learning in math, language, and literacy (McClelland et al., 2021; Cameron et al., 2019; Mägi & Männamaa, 2016). Aspects of children's self-regulation have also been linked to their ability to navigate the classroom environment socially. Research finds links between children's regulatory abilities and their peer relations, social problem-solving, capacity for sharing, and ability to be empathetic (Muir et al., 2023; Houseman, 2017). The link between regulatory abilities and social functioning also makes sense. Positive social interactions require children to suspend their own perspective in order to understand another's (i.e., impulse control, an important aspect of self-regulation) and also demand that children, at times, manage difficult emotions, such as feeling disappointed, frustrated, or confused.

Research finds that caregiving or classroom environments can have an important influence on children's regulatory abilities. Although children's self-regulation evolves in part from aspects of their temperament and genetic predispositions, research finds their everyday environments can have an important influence on how they engage their regulatory system and the extent to which they develop positive regulatory capacities (Timmons et al., 2015). The extent to which children's environments allow them to successfully practice regulatory skills—within games, routines, structured activities, and play—and support children's increasingly independent use of these skills—are important aspects of a high-quality caregiving environment (Vasseleu et al., 2021). Classrooms that organize children's behavior through routines foster independence and autonomy and help children apply their regulatory skills toward successful outcomes (Selman & Dilworth-Bart, 2023). Routines also create predictable approaches to work and predictable transitions, and these aspects of routines may help children emotionally regulate throughout the day's classroom activities (e.g., minimize feelings of being overwhelmed or unsure; minimize feelings of frustration or surprise at times of transition).

An important mechanism by which adults support children's regulation is the language they use around problem-solving (O'Reilly et al., 2022). When adults consciously model language that reflects a strategy for approaching a problem and/or use language to specify feelings related to a situation, children begin to have “scripts” for approaching similar problems or situations. Over time, children's exposure to this type of regulated and supportive dialogue may become internalized and thus becomes an aspect of their regulatory development (Fernández-Santín & Feliu-Torruella, 2020).

Beyond routines and aspects of caregiver language, aspects of warm and sensitive caregiving are also critical to children's regulation (Jeon et al., 2022). In fact, many of the behaviors discussed previously in relation to warm and sensitive caregiving support regulatory development as well as social development. Let's return to the scenario presented as an example of warm and sensitive early care and education and consider the interaction through a different lens. Rather than focus on how the teacher established a positive and warm climate, we will focus on strategies that support children's regulation.

A teacher is smiling at the children who are on the rug. He is sitting in a chair low to the floor and children are spread out around him. Some are sitting cross-legged, a few are lying on their sides with their elbows propping them up. One child leans against a cabinet. All the children appear generally attentive and the teacher does not comment on the varied sitting styles. A number of them are quite close to him and a few are touching his knee or leg. One of the children closest to him is leaning against him. Smiling warmly at the group, he holds up two fingers in a signal for everyone to get quiet. Fairly quickly the majority of the children do the same signal and, as each child quiets down, he compliments each by name.

He lightly touches the shoulder of one girl who was having trouble getting quiet and, as she settles, the teacher starts off the circle time with a little chant all the children know. Some children do the little gestures with the chant, some don't, and some don't say all the words but are following along. The teacher makes eye contact around the room, smiling, and accepting the different ways the children participate. He lets the children know he has a new book to share. He introduces the book and notices the excited look among a few children and that one child sitting at the back is pouting. He says in a light tone, "Well, I see some are excited and some may feel frustrated about today's book!" He smiles at the girl who is pouting and sings to the class: "In some ways we are different. But in so many ways, we are the same" (a familiar jingle for the class from a popular children's show). He says, "I bet we can each find at least one thing that we like in this book as we listen." The song makes the girl smile and the teacher continues to introduce the book to the class.

In this scene, the teacher has a clearly established routine for gathering and organizing attention toward the circle-time activity and this is seen by how responsive the children are to his signal for gathering (holding up two fingers). The teacher's chant provides additional evidence of a routine that is in place to engage the children's attention. The chant, as opposed to verbal directions about paying attention, reflects a positive and proactive approach to supporting children's behavior regulation. The chant has the desired effect on children's behavior (teaches them to orient to the

teacher for circle time), but it does so by capitalizing on children's natural tendency to orient to a fun song or chant, rather than by introducing a directive or demand (which often has a more negative effect on young children). The teacher is also tolerant as children work to settle in toward the circle-time activity; this can be seen by his patience with the young girl who needed an extra cue (touch on the shoulder) and is also seen in his tolerance of the children who are not yet fully participating in the chant and its gestures. He relies on his warm connection to these children—demonstrated by his smiles and eye contact and physical touch—to engage them more fully, but he does not demand that they comply at this particular instance. This response not only reflects a warm and sensitive style, but reflects an understanding that participation and cooperation, particularly in a large group setting, require many aspects of regulation to come together (sustained attention, memory, ability to ignore other distractions). His tolerance likely reflects, in part, an understanding that engagement and participation are developmental processes and are not to be viewed from the lens of children's compliance. Similarly, his tolerance for children sitting in various positions (some cross-legged, some leaning on their elbows) not only reflects a child-centered attitude, but also reflects the teacher's support for children's own autonomy and self-management. He allows children the opportunity to experiment with movement and body position as a support to their attention; for some children, this type of movement is an important strategy for sustaining attention in a difficult situation, such as a large-group shared book reading. Finally, the teacher models various strategies for helping children regulate difficult emotions. He labels the young girl's "feeling of frustration" as being related to the shared reading, and this provides both a label and quick explanation for the young child about her initial negative feeling.

Research suggests that children's self-regulatory abilities are among the most important skills for school readiness (Blair & Raver, 2015). Research shows that children who enter kindergarten with sufficient self-regulation skills show higher levels of attentional flexibility, working memory, and inhibitory control. The differences in such skills between children who did and did not develop sufficient self-regulation skills in early childhood tend to increase over time (Rudasill et al., 2022). In the example above, the teacher's use of warm responses, appealing routines, attention to emotions, and modeling of positive behaviors all encourage growth in his students' self-regulatory skills.

Increasingly, young children are being suspended or expelled from preschool—an estimated 250 every day (Clayback & Hemmeter, 2021)—for poorly regulated behavior, which means their early childhood programs are failing to have a significant effect on their regulatory development. Preschoolers are expelled at three times the rate of children in K–12; boys are expelled four times

more often than girls; and Black children are expelled almost twice as often as are Latino or White children (Head Start, 2024).



(Head Start, 2024)

In lower-quality classrooms, support for children’s regulation is often less evident and more demanding, as illustrated in this example.

Low-Mid Scenario

A teacher is smiling at the children who are on the rug. He asks all the children to sit upright and cross-legged. It takes some time to get all the children in this position as a few of the “wiggly” ones are resistant. He asks the children who are leaning against him to sit up and he puts some physical distance between himself and them by moving into a chair. Correcting the sitting position of certain children takes time and, as it is happening, other children begin talking. To gain everyone’s attention, the teacher holds up two fingers, a signal that he uses to try to calm the classroom. The children are distracted and not all respond immediately to his gesture, so he offers a warning in a somewhat impatient tone (but not overly harsh) that they will not have time for the book if they can’t settle down. One child tries to explain that he wants to lean against the cabinet as he likes to sit that way, but the teacher cuts the boy off before he finishes speaking and says in a sing-song voice that he is asking everyone to show they are ready by sitting up and not talking. He does not make eye contact with the little boy who was speaking up. He seeks to facilitate the “getting-ready” process by putting his focus on the children who are not yet listening, calling out their names, and saying, “We are waiting...” When everyone is settled, he begins the morning-circle chant. His tone is upbeat and he smiles at the children as he starts the chant, but the smile is not shared by all the children and does not feel entirely genuine. During the chant he scans the room to ensure all are fully participating and gives a look and headshake at children who are not doing the gestures to indicate that he expects their cooperation. He gestures for the little boy who had wanted to sit against the cabinet to sit back up, as he is wiggling/starting to lie down. After the chant, the teacher says, “Hmm... I think we can do better. Not everyone was

with us. Let's try again and let's all do the hand gestures." The children are compliant but are not necessarily all demonstrating enjoyment during the chant redo. After the morning chant, the teacher lets the children know he has a new book. He introduces the book and notices the excited look between a few children and notices that one child sitting at the back is pouting. He says, "I really like the enthusiasm of Jonah and Tobias" and gives them a big smile. "Let's see if we can all try to be positive. Julia, let's not pout. I am sure you will be able to find something you like in this book, don't you think?"

In this scenario, routines are much less established and support for children's autonomy is not as evident. There are fewer instances of proactive behavior management, and techniques used to support and engage children's attention are largely absent. Rather, attention is constantly redirected with more negative comments about misbehavior or punitive threats (low-grade threats; we won't have time to read this book). Such an approach escalates, rather than diffuses, rising tensions or challenges. Further, the teacher's own regulation—and capacity for flexibility and tolerance of mishaps—is less evident. He demands specific compliance to the structure of the activity and this, actually, provides children with less support to their regulatory development than would an approach that placed more value on their independence and decision-making (Hautakangas et al., 2021). The teacher seeks to create a positive environment by having children all feel positive; yet this approach fails to provide children with guidance in managing their feelings. In fact, minimal evidence is seen of language designed to help children understand, label, and process their emotional states.

The techniques that define high levels of support to children's regulatory behavior are subtle and challenging, particularly when there is a lack of knowledge about their self-regulatory development and an ability to assess these capacities within the classroom (Burgess et al., 2023; Phillips et al., 2022). Structured curricula designed to help caregivers in their support to children's regulation have been seen to be effective (Panadero, 2017) and are continuing to evolve.

Relevance to Texas Rising Star

The measures within Texas Rising Star promote key behaviors seen as important to young children's regulatory development, including modeling emotional expression and interpreting emotions, using logical consequences, consistently implementing rules and routines, demonstrating flexibility, deescalating rising tensions, and supporting communication. Exemplars of these aspects of support were highlighted in the scenarios and are consistent with the research discussed.

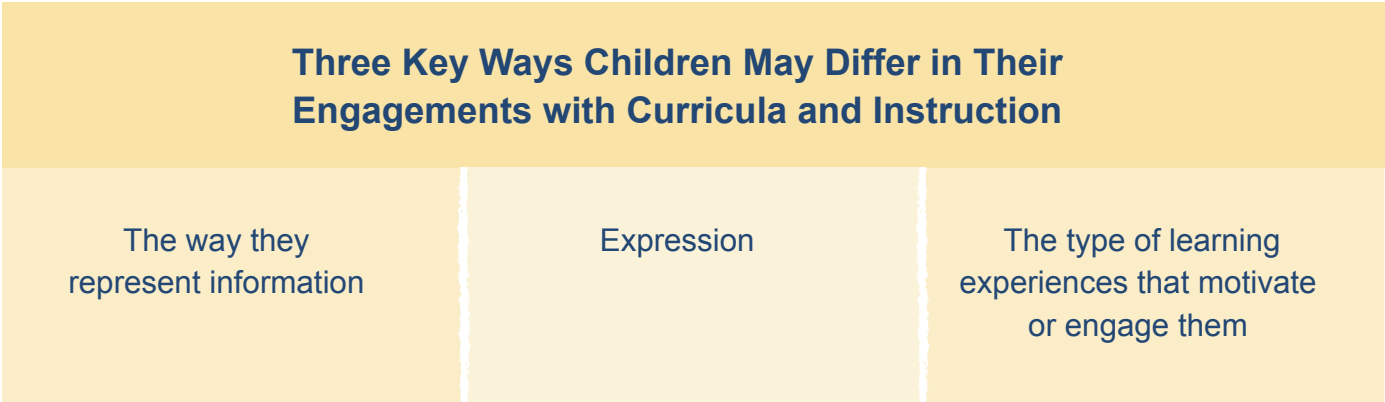
Instructional Formats and Approaches to Learning

The use of a curriculum is not as simple as selecting a single program or set of programs and assuming the work of planning and organizing instruction is taken care of. The ways that classrooms balance instruction across activity settings and formats, balance the nature of teacher-child interactions within instructional experiences, and balance the diversity of curricular tools and materials used are critical to establishing a flexible learning environment. Young children engage in information in very different ways and may have quite different strengths and weaknesses in how they show what they know and what they are learning (Ritoša et al., 2023; Lei et al., 2018). Young children differ in how they express themselves verbally, focus attention toward a task, or maintain engagement, and the manner and ease with which they take in new ideas or concepts (Boekaerts, 2016; Fredricks et al., 2016).

These differences in the processes of learning have little to do with a child's capacity for learning. As a result, research, as well as state- and federal-level legislation, increasingly point to the need for flexible curricula and lesson plans that address variations in children's needs, skills, and interests. When curricula or lesson plans are designed to be flexible, they do not alter the key content. Rather, flexible curricula and lesson plans weave in options for children throughout the process of learning (Flückiger, et al., 2018). This type of flexible design ensures that curricula or lesson plans are not inadvertently introducing roadblocks that would unevenly disadvantage certain types of learners or certain children (Cade, et al., 2021; Wood & Hedges, 2016).

An important research-based framework for considering flexible curricula use is that of Universal Design for Learning (CAST 2011; Lohmann et al., 2018). This framework speaks to three key ways that children may differ in their engagement with curricula and instruction. The first is that children may differ in the way they represent information, which relates to how they take in information. Although the typical way a classroom might present information is verbally (teacher instructions or teacher-led lecture), flexible use of curricula means adding in choices. For example, verbal instructions or presentations can be paired with visual supports or manipulatives; another option would be to weave in technology-based modalities to reinforce information (videos, interactive websites, etc.) The second dimension is expression. Children, particularly children with disabilities or those who are English Language Learners, may need to demonstrate what they know and understand in nontraditional ways. Even children without specific challenges in

oral expression may prefer to draw, write, or create as a means of integrating and synthesizing during learning. Finally, children may differ in the types of learning experiences that motivate or engage them. For example, balancing the extent to which instruction is caregiver-directed vs. child-directed may have important effects on children’s comfort and empowerment with the learning process and, thus, may influence their learning outcomes (Almeqdad et al., 2023).



Universal Design for Learning (Cast 2011; Lohmann et al, 2018).

Relevance to Texas Rising Star

The measures within Texas Rising Star related to Instructional Learning Formats emphasize the importance of ensuring that learning extends across the day through formal and informal settings (e.g., during transitions as well as during more structured activities) and involves opportunities that balance the various learning styles and needs of the classroom. Texas Rising Star emphasizes, for example, the importance of hands-on activities being paired with more traditional, language-based learning activities (e.g. stories, discussions) and the value of integrating props and manipulatives into daily activities. This perspective is a direct reflection of the idea that children may use and need these types of concrete scaffolds for many different reasons—as support to their comprehension, as a means of expressing themselves, or as a means of enhancing their attention to the task. Similarly, Texas Rising Star discusses the value of balancing child-initiated activities with teacher-directed activities, reflecting the research that suggests the importance of a flexible learning environment to children’s development. The perspective, embedded throughout the Texas Rising Star measures on high-quality instructional learning formats, involves teacher practices that make curricula accessible to a variety of children who have a variety of needs.

Program Administration

Early childhood education program administrators balance complex challenges, all of which are vital to their mission of creating positive outcomes for the children in their care (Philipsen Hetzner & Madigan, 2021). Among their biggest responsibilities are leading and mentoring teachers, encouraging family engagement, building pathways for diversity and children who have special needs, ensuring that children's health and nutritional needs are met, and implementing appropriate curricula.

Research overwhelmingly shows that early childhood education programs have a positive effect on children's later readiness for school. Quality teaching and an environment that supports infant, toddler, and preschool children's educational needs are vital and require sound administrative practices to thrive. (Fonsén et al., 2022; Cade, Wardle & Otter, 2021; Philipsen Hetzner & Madigan, 2021; Donoghue et al., 2017).

Family-school partnerships are important tools in making this happen. Reaching out to parents, opening lines of communication, and helping remove obstacles to family engagement are recognized as powerful ways to improve children's outcomes in education, as well as in health and well-being (Cutshaw et al., 2022; Murphy et al., 2021). Not only does the two-way communication allow parents a window into their child's learning, it also allows the teacher a window into the child's home life and the opportunity to tailor content to a child's unique situation and needs in terms of language, culture, or special needs (Avari et al., 2022). A research review of 75 studies published between 2003 and 2017 found that parental involvement in terms of expectations, support, and communication are critical ingredients in the success of their children, both in academics and in social and emotional growth (Boonk et al., 2018).

Family Education and Involvement

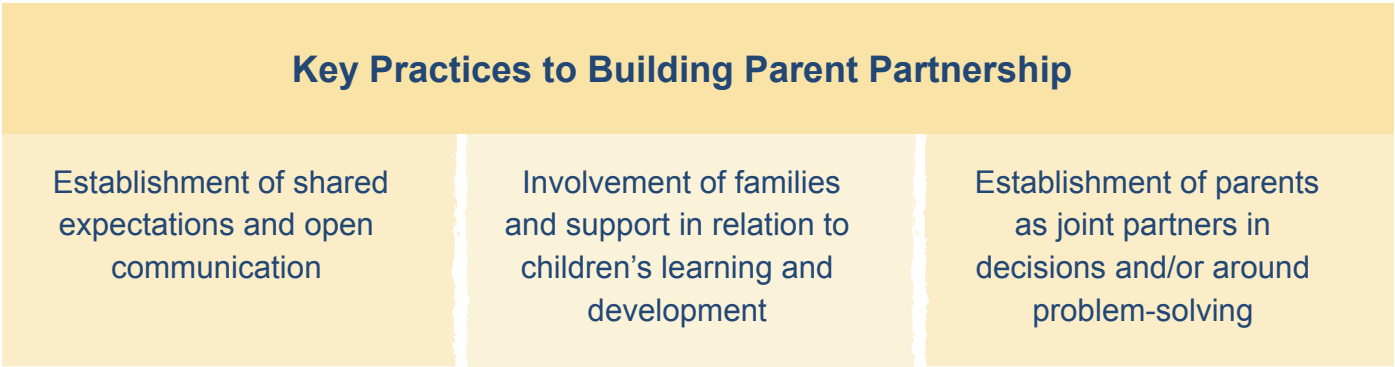
Historically, parent/family involvement has implied a relatively superficial engagement of parents in classrooms and classroom-based activities (presence at a special event, chaperoning field trips) (Kim, 2022). Although this type of parent-initiated involvement does foster positive relationships between families and schools, its influence is limited when compared to more comprehensive approaches to parent involvement or engagement (Kim, 2022). Indeed, when parent involvement focuses primarily on limited participation in school activities in traditional, school-led ways (classroom volunteering), there are often tensions in terms of sensitivity to family schedules, resources, and capacities, and these can lead to biases within home-school relationships. This is particularly true for those who may not share the same mainstream views as the school or caregiver regarding their role in children's education or schooling (Murphy et al., 2021). Indeed, these traditional, and more limited, models of parent/family involvement have tended to disenfranchise groups of parents with varied ethnic or language backgrounds, as well as fail to integrate family strengths with school strengths in support of children (Oke et al., 2021; Liu & Gae, 2022).

Recent models of parent/family involvement have emphasized a deeper partnership between parents and schools (Kelty & Wakabayashi, 2020). Parents, like caregivers, have a significant influence on children's cognitive, academic, social/behavioral and wellness outcomes (Frosch et al., 2019). In fact, the idea that parents and caregivers are joint stewards of children's developmental outcomes is supported by research showing a strong parallel between high-quality parenting behaviors and high-quality teaching behaviors (Fuertes et al., 2018). For example, behaviors like shared reading, cognitive stimulation, rich language and conversation, and warmth and responsiveness are all seen as markers of high-quality parenting (Prime et al., 2023; Kong & Yasmin 2022; Liu & Leighton, 2021). Likewise, the same behaviors are seen as being at the center of high-quality teaching (Soliday Hong et al., 2019; Manning et al., 2017).

Models of parent partnership recognize this joint influence and seek to actively integrate family strengths and school strengths into a coherent base of support for children. Such comprehensive parent partnership models are now seen as the most powerful and culturally sensitive approaches to involving parents in their children's schooling and development (Barajas-Gonzales et al., 2024; Hummel et al., 2022; Einarsdottir & Jónsdóttir, 2019). Such partnership-oriented approaches are

also consistent with developmental theories that point to child outcomes as the function of various everyday environments (home, school) and the ways in which those environments interact (Lang et al., 2023). Although the home environment and school environment do not need to be replicas of each other, the more alignment there is in routines and expectations, the more environments can be mutually reinforcing and supportive. As such, children have a clear framework for successful and positive interactions with adults, peers, and within learning activities, across settings (Lang et al., 2023). Further, it is important to note that alignment between home and school does not always mean that parents are aligning to the school or early education program. Rather, within a strong home-school partnership, alignment occurs in both directions so that early childhood programs work to bring in family strengths and culture to the classroom, as well as supporting parents in building capacity for high-quality parent behaviors in the home (Sisson et al., 2021; NAEYC, n.d.).

Across these more comprehensive models of parent/family involvement, there are a number of recommendations for how early childhood programs can foster true parent partnership. Key practices related to building parent partnership include the establishment of shared expectations and open communication, involvement of families and support to families in relation to children’s learning and development, and establishment of parents as joint partners in decisions and/or around problem-solving (Cutshaw et al., 2020; Sabol, et al., 2018).



(Cutshaw et al, 2020; Sobol, et al, 2018).

A research study that analyzed the combined results of 23 meta-studies over 50 years established that parental involvement has a positive effect on student achievement (Kim, 2022). Both the NAEYC (2018) and the administration of Head Start (2016) recommend the practice of teachers reaching out to parents to share information about their children’s progress, to update formal and informal assessments, to set goals, and to promote family engagement. Methods can include personal interaction as well as email, texting, message boards, or classroom newsletters (NAEYC).

The remainder of this chapter will focus on how the activities of early childhood programs can be structured to successfully establish these dimensions of parent partnership and how these principles are reflected within the Texas Rising Star measures and requirements.

Relevance to Texas Rising Star

The measures within Texas Rising Star related to Parent/Family Education and Involvement reflect many aspects of a partnership-oriented approach to parent/family engagement. Collectively, these measures establish a framework for thinking broadly about how to involve parents/families at various levels of engagement. For example, the requirements related to Parent/Family Education emphasize the importance of sharing policies and procedures of the early childhood program or center with parents. However, Texas Rising Star recognizes this is just an initial step toward establishing shared expectations and practices between home and school/early education centers.

Thus, the points-based measures related to Parent/Family Education reflect the broader concepts of joint communication, parent capacity-building, and family supports, which are critical pieces of parent/family involvement within a partnership framework. By combining measures in this way, Texas Rising Star points to the importance of having a system of parent partnership that acknowledges the value of more traditional and fundamental aspects of parent/family involvement (sharing policies, procedures, and structures), while also pointing toward the importance of more comprehensive and partnership-oriented activities.

Building Shared Expectations and Family Capacity

The way that early childhood programs manage their parent/family outreach and education efforts can have a significant influence on establishing the home and school environments as a joint base of support. For example, ensuring that parents/families are connected to the school through a variety of formal and informal mechanisms—such as participation in parent-teacher conferences, school meetings, newsletters, apps, and emails—can be a means of setting shared expectations for children’s learning (Avari et al., 2022; Barnes et al., 2016). Basic communication, such as sharing of policies and procedures, can be quite important for ensuring that families who are more economically disadvantaged or who do not share the dominant social culture have a sense of access to the school (Iruka et al., 2022; Keltz et al., 2020). Beyond providing parents this sense of school access, however, it is also important that programs and centers actively cultivate the expectation that information can and should flow in both directions. In this way

parents are encouraged to help shape the conversation, and not simply sit as recipients of the program's or school's perspective (Hadley & Rouse, 2018; Barnes et al., 2016). Again, an early childhood program's culture of communication is an important mechanism for establishing shared expectations and shared responsibility for children's learning.

Successful parent/family outreach and education efforts do not just seek to engage parents at school or share information about school, but to involve them in schooling. Thus, an important way for early childhood programs to reach out and support parent/family involvement is through their active support for high-quality parenting at home (Barnett et al., 2020). Yet, research finds that efforts to demand more of parents—in terms of having them implement reading programs or academic interventions, for example—tend to fall short for those children most in need; e.g., those in low-income families and/or English language learners (Bettencourt et al., 2020). In many cases, barriers to participation within such interventions rest within the broader context of family poverty or family stressors (Liu & Gao, 2022; Oke et al., 2020; Norheim & Moser, 2020). Seen through the lens of parent partnership, these realities suggest a role for early childhood programs and centers in fostering parents' capacity to be involved in children's learning and school success, rather than simply demanding or requiring such involvement.

When early childhood programs make an effort to educate parents/families on best practices related to children's learning and development, they must do so in ways that establish a trusting relationship with parents/families, reflect sensitivity to the parents'/family's capacities and culture, and address the stressors and challenges that may be barriers to parent participation in education efforts (Norheim & Moser, 2020). A number of highly successful parent/family education efforts aimed at high-risk populations have demonstrated positive effects on parents' support for children's learning as well as children's learning outcomes when they take these ideas into consideration (Rogers et al., 2018; Murphy et al., 2021; Dias-Broens & van Steensel, 2022; Dereli & Kurtça 2023). What appears important within and across these initiatives is the extent to which they did not focus only on what to tell parents/families but also gave considerable thought on how to help parents/families connect to the information in meaningful ways.

One key dimension of successful parent/family education efforts is that it addresses potential barriers to parent participation, in motivation and logistics, including family attitudes about parental involvement, feelings of cultural or economic isolation, transportation to education events, child care during the event, involvement of multiple family members (not just the mother), and ongoing coordination or connection about the schedule (Hornby & Blackwell, 2018). These barriers tend to be unequally distributed and are more entrenched in families with fewer resources; therefore,

failure to address such barriers tends to perpetuate the cycle of unequal access to school involvement and unequal support for children’s learning. On the other hand, when such barriers are actively addressed in creative ways, parent/family involvement and outreach efforts can have a higher degree of success (Oke et al., 2020; Petrovic et al., 2019; Nitecki, 2015).

Key Dimensions of Successful Parent/Family Education Efforts		
They address potential barriers to parent participation in motivation and logistics	Children in the family are actively involved in the initiative	They reflect sensitivity to family diversity

A second dimension of many successful parent/family education efforts is that children in the family were actively involved in the initiative. This may take different forms. For example, sometimes, family education initiatives are extended into the home. Thus, early education programs initiate home-visiting programs and work with parents/families in the home on specific skills or strategies. Sometimes this approach is taken within school- or center-based programs, but they occur at a convenient time for the whole family to participate (e.g., Saturday classes) and are designed for parents to work with their children under the coaching or guidance of a trusted early childhood educator. Both these approaches give parents/families access to the type of coaching support seen as critical to adult learning. Further, by involving children within education initiatives, parents do not have to make a trade-off between participation in an education opportunity and spending time with the family. This reflects sensitivity to the limited time and capacity within many families, particularly those families that lack abundant resources or flexibility in their schedules (Baker et al., 2016; Shillady et al, 2014).

Another dimension of many successful parent/family education initiatives is that they reflect sensitivity to family diversity. This can be seen in various ways. For example, it is important for programs serving diverse families to use culturally relevant materials and examples (video models that involve various ethnicities), as well as give thought to the match between the language and ethnicity of the early childhood educator and that of the families. When possible, translation of materials into other languages can be a way to recognize and acknowledge the needs of families being served (Premo et al., 2023; Dikilitas et al., 2023). Families with a child who has a disability or other special needs may find it difficult to interact with educators (Passmore & Zarate, 2020). Sensitivity to broader family needs can also be seen in efforts that include incentives for

participation. These incentives typically reflect awareness to the needs of families and seek to establish a sense of caring and concern for the family as a whole. The types of incentives that are often seen include providing food during the education event, take-away materials or “kits” to support families in using ideas and strategies presented, as well as referrals and connections to needed resources, as part of the education initiative.

Relevance to Texas Rising Star

The measures within Texas Rising Star reflect critical features of communication and education highlighted within the research. For example, the Texas Rising Star requirement on Parent/Family Education points to the importance of establishing a clear mechanism of communication between the program and parents/families. High-quality parent/family communication is defined in Texas Rising Star by practices that encourage parents to share information related to their child or family, the establishment of ongoing channels of communication between parents/families and early childhood program staff (regular notes sent home on children’s progress), and the creation of formal mechanisms for parents/families to offer feedback (surveys). Texas Rising Star also emphasizes the importance of valuing parent/family perspectives and actively reflecting these within the program policies and procedures. Collectively, these aspects of Texas Rising Star emphasize the importance of two-way communication channels (i.e., parents to teachers, teachers to parents) and multiple routes of communication for parents/families. In this way, Texas Rising Star works to formalize communication mechanisms that are important to reaching parents and establishing shared expectations and responsibility for children’s learning.

In addition to the value Texas Rising Star places on open and shared communication, the Texas Rising Star points-based measures (on Education and Involvement) point to the value of sharing information on children’s development and establishing the expectation that parents/families play a role in children’s development. For example, Texas Rising Star defines a high-quality orientation as one that involves speaking to parents/families about developmental milestones and making a formalized statement about the family’s role in learning. Similarly, the measures related to parent/family involvement indicate that high-quality parent conferences are seen to center around children’s learning, work and progress, and note that all of this information should not be new at conference time, but rather has been shared throughout the day and weeks of school on an ongoing basis. Collectively, these aspects of Texas Rising Star help establish the expectation that parents are partners within their children’s learning—an idea that research-based models of parent/family involvement tend to emphasize (Barnett et al., 2020).

Texas Rising Star Education and Involvement points-based measures point to the value of sharing information on children's development and establishing the expectation that parents/families play a role in children's development.

The research on parent/family involvement places a strong emphasis on creating frequent and well-designed opportunities for parent learning through early education programs. The Texas Rising Star measures on Parent/Family Involvement also point to these types of high-quality parent/family education practices. Although Texas Rising Star does not mandate any specific format for parent/family education initiatives, the points-based measures that define high-quality parent/family education suggest the importance of education initiatives that are sensitive to diverse family needs. This is a critical concept within the research on parent/family education. For example, the Texas Rising Star measure on education shows that high-quality parent-education efforts work to schedule around families (holidays, weekends, home-based), make multiple types of resources available to parents/families (within the Parent Education measure), and seek to meet family needs by connecting parents/families to resources within the community. Further, Texas Rising Star suggests that high-quality education initiatives will be offered frequently and that centers will find ways to encourage parents to participate in at least three of these events. As such, Texas Rising Star reflects the research-based and partnership-oriented perspective on parent education—which points to the importance of early childhood programs taking an active role in building alignment and capacity within families for the improved learning outcomes of children.

Building Families as Decision-Makers and Joint Problem-Solvers

Joint decision-making and problem-solving between schools and parents/families is another important dimension of a partnership-oriented model of parent/family involvement. Early childhood programs or centers need to establish routines that allow parents to advocate for their children's needs and be involved in addressing issues that arise, preferably before issues have escalated into more serious problems (Cutshaw et al., 2020). The concept of advocacy has been emphasized within parent/family involvement models for children with special needs or learning needs. Indeed, research finds that parent/family involvement is critical when a child has a difficulty or a disability, even among parents who tend not to be highly active (Passmore

et al., 2020). One crucial area where parents need to be involved in joint problem-solving and decision-making is child behavior problems. This is a particularly critical area in which to ensure strong parent/family involvement because problem behaviors tend to be one of the primary causes for adverse outcomes in preschool, such as preschool expulsion (DuShane & Yu, 2023). National data establish that preschoolers are suspended or expelled at three times the national average of expulsions in K–12 (HHS Head Start ECLKC, n.d.). Preschool expulsion is seen as a missed opportunity, as research suggests that preschools can effectively work with children and families to minimize or end negative behavior cycles (American Academy of Pediatrics [AAP] policy statement, 2023). Although much of the research on addressing expulsion rates has focused on teacher training and classroom curricula, the role of parents is an obvious and central one when considering the importance of creating positive and reinforcing systems of support for these children across their everyday environments (Kong & Yasmin, 2022; Lehl et al., 2020).

Relevance to Texas Rising Star

The research around parents as joint decision-makers and problem-solvers is reflected within the measures of Texas Rising Star related to managing problem behaviors or challenging behaviors or children. As the research suggests, the basis for effective joint problem-solving is a strong parent-school relationship, as well as a prevention-oriented approach to addressing children's needs and difficulties. Texas Rising Star has specific structural requirements that mandate a problem-solving approach to children's problem behavior and requires that parents/families are actively involved within the conversation. Further, points-based requirements around parent communication and parent/family involvement in school-based training, as well as Texas Rising Star measures advocating for the value of connecting families to needed resources, suggest a more holistic and “wraparound” approach to supporting families who have children with challenging behaviors.

Program Management

Annual turnover of early childhood education staff has been estimated to be 20% or higher in about one-third of child care centers (National Survey of Early Care and Education, 2019), and research has reported it to be as high as 40% in some circumstances (Bassok et al., 2021). The industry is struggling even more after the COVID-19 pandemic years, in which as many as 80,000 Early Care and Education jobs were lost (HHS, 2023). Recruiting and retaining quality child care

workers is a significant need (Bryant et al., 2023), and much focus has been placed on the wages that these workers earn. The National Early Care and Education Workforce Center, a \$30 million investment of research and technology, was launched in 2023 to help build a “career pipeline” and increase compensation and benefits (HHS, 2023).

The average wage for a child care center employee in 2019 was \$13.09 an hour, though some wages were lower, including for assistant teachers (\$11.86), employees with less than five years of experience (\$10.74), and those with no postsecondary education and no certification (\$10.62) (Amadon et al., 2023). These numbers fall short of the federal Bureau of Labor Statistics estimate, which tracks employment data in the United States and says the median wage in 2023 for child care workers was \$14.60 an hour. More than half of child care workers between 2014 and 2016 enrolled in at least one public income support or health care program (Whitebook et al., Early Childhood Workforce Index, 2018).

The 2019 survey showed that turnover is higher in child care centers where salary is lower (Grunewald et al., 2022). How pay issues affect turnover is complicated, as many concurrent issues affect it as well, such as staffing levels, worker stress and burnout, education and/or credential requirements, organizational characteristics, professional development opportunities, and public subsidies (Bassok et al., 2021; Tottenham et al., 2016). But a longitudinal review of dozens of research studies over the last three decades shows that child care workers’ wages is a primary issue in turnover, and that programs offering cash incentives or scholarships had higher rates of retention (Tottenham et al., 2016). A recent study showed that early childhood educators in Virginia were 11% less likely to leave their jobs after receiving wage supplements through federal Preschool Development Birth through Five grant (PDB B-5) funding. The educators became eligible for additional compensation of up to \$1,500 after working with children ages 0–5 for 30 hours or more per week at the same site for eight months (Bassok et al., 2021). In general, research finds that employees are more motivated when they can earn merit pay (Gerhart, 2017; Fulmer et al, 2023).

Teacher well-being—which encompasses career satisfaction, finances, level of education, job stress, health, and psychological health (including history of Adverse Childhood Experiences, or ACEs)—has been shown to be linked to the ability to deliver a higher quality of teaching (Jennings et al., 2020; Cumming, 2016). Research that divided its 133 participants into two subgroups—one with a higher level of these elements of well-being and the other with a lower level—found that the teachers with fewer elements also reported fewer days of psychological well-being and more challenges in their work (Roberts et al., 2023).

Other issues that affect early childhood education teachers on the job are such things as how the organization works, whether teachers have time and support for their own planning, assessment, and development (PAD) needs. In 2020, the Early Childhood Workforce Index named “paid non-child contact time for completion of professional responsibilities and reflection with colleagues” as one of three main work environment standards enabling good teaching practice along with sufficient staffing and the ability to provide input in decisions that affect teaching (Early Childhood Workforce Index, 2020).

Dedicated PAD hours independent of caring for children also give teachers more time to consistently create and maintain child assessments (both formal and informal). These assessments then become important tools to share with families and help build a teacher-family collaboration. Assessment not only helps the teacher respond to each child’s individual needs and level of progress, it can also be used to understand how well teaching programs and curriculum are working, whether children are meeting desired standards, and what adjustments might be needed (Puinean et al., 2022). Children do not learn at the same pace or in the same way; there are often learning differences between male and female children, children of different races, and children of different income backgrounds who populate the same classroom (Weiland et al., 2023). Assessments can include personal observation and testing in specific areas appropriate to a child’s age; the results of those assessments can be used to plan instruction (Hansel, 2019).

Although researchers say more study is needed, some studies do provide positive evidence that children who are regularly evaluated may achieve better outcomes and/or be more ready for school (Isquith-Dicker et al., 2021; Akers et al., 2015). Head Start requires an initial development screening within 45 days using research-based standardized screening tools and follows up with regular assessments of each child according to Head Start’s Early Learning Outcomes Framework: Ages Birth Through Five goals (Head Start, n.d.). Infants and toddlers are evaluated differently than preschool-age children are, but both are assessed in five areas: approaches to learning, social and emotional development, language and literacy, cognition, and perceptual/ motor/physical development, and the resulting information is required to be shared between teachers and parents.

Studies show that collaboration between early childhood teachers and families boosts both the academic and social development of the children (Bierman et al., 2017; Marti et al., 2018; Murphy et al., 2021). When those partnerships are in place, teachers can share knowledge about how children learn and develop in a warm and responsive home (Bierman et al., 2017; Lang et al., 2016). And that teacher-to-parent and parent-to-teacher communication sets up a pattern as preschool children move toward school (Cutshaw et al., 2022; Murray et al., 2014).

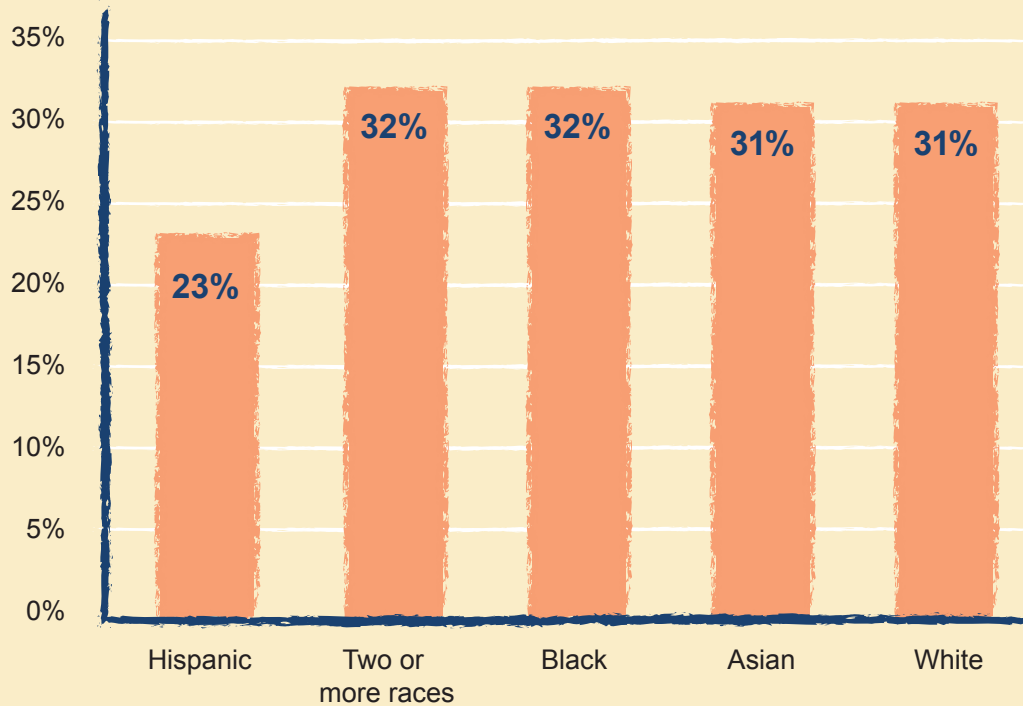
Planning for Special Needs and Respecting Diversity

Today's early childhood care and classroom settings reflect a diverse community of learners from various cultural and linguistic backgrounds and with varied special learning needs (National Center for Education Statistics [NCES], 2023). The number of 3- to 4-year-olds served by some type of formal school setting in 2021 was 50% (NCES, 2023), although enrollments had not completely regained the pre-pandemic numbers of 2019. Of those children, 59% were Asian, 55% were White, 48% were Black, 42% were Hispanic, and 48% were of mixed race. Nationally, the fastest-growing minority population is people of Asian and Pacific Islander descent, with an increase of approximately 35.5% in the U.S. Asian population and an increase of 28% in the Pacific Islander population between 2010 and 2020 (Census Bureau, 2022).

Mirroring this growth in diversity of the general population is the racial and cultural makeup of children in the pre-k–12 school system. Estimates suggest approximately 10.3% of all children in the United States public school system in 2020 were labeled as English Language Learners (ELL), and the percentages are higher in certain geographic regions and urban areas (NCES, 2023). The rising trend was disrupted during the first school year of the pandemic, when ELL student numbers fell slightly from 10.4% to 10.3%. Spanish was the most common home language in 2020, accounting for 75.5% of all ELL students (NCES, 2023). In addition to noting increased cultural, racial, and linguistic diversity in the early childhood classroom, a joint position statement released in 2015 by the U.S. Department of Health and Human Services and the U.S. Department of Education emphasized the importance of early childhood inclusion for children with disabilities. This perspective has changed the expectations for the early childhood classroom and has highlighted the importance of organizing instructional experiences to be available and accessible to a wide range of children.

For both groups of children—English Language Learners and children with disabilities or special learning needs—the potential for preschool to serve as an important scaffold to development is not yet fully realized. Children of Hispanic descent who are 3 to 5 years of age are less likely to attend preschool when compared to their same-age peers. Only 23% of Hispanic children under age 6 who were not enrolled in kindergarten attended preschool, compared with children of two or more races (34%), Black children (32%) or White or Asian children (each 31%) (NCES, 2019).

Children Under 6 Who Attended Preschool*



*Not enrolled in kindergarten (NCES, 2019)

Similarly, only 38% of preschool-age children eligible for special education services spend time in an inclusive setting as their primary placement (U.S. Department of Education, 2014). The message from this research is that access to preschool programming is an important component of supporting diverse populations. In late 2023, the U.S. Departments of Education and Health and Human Services released an updated policy statement saying that “all young children with disabilities should have access to high-quality inclusive early childhood programs that provide individualized and appropriate support so they can fully participate alongside their peers without disabilities, meet high expectations and achieve their full potential.”

Although model preschool programs appear to have a significant benefit for both ELL and children with disabilities (Schoch et al., 2023), there continue to be significant gaps in school readiness (and persistent gaps through schooling) for diverse populations (Siller et al., 2021). Early learning environments that seek to offset this disparity must integrate scaffolds and accommodations into their daily instructional experiences (Rad et al., 2022; Zabeli & Gjelaaj, 2020; Barton & Smith, 2015). A key idea for children from varied cultural and linguistic backgrounds is that of a

culturally sensitive curriculum (Nganga et al., 2020). Research points to the importance of having and incorporating the language and culture of families into instructional experiences (Cycyk et al., 2021; Cycyk & Hammer, 2020), allowing for adaptations within instructional interactions and supporting peer interactions within groups (Larson et al., 2020; Guiberson & Petrita Ferris, 2019). Notably, many of these same strategies—including modeling and support for participation, inclusion of peers in learning, and cues and supports during instructional interactions—are also seen as beneficial to a variety of children with special learning needs.

Relevance to Texas Rising Star

The measures within Texas Rising Star that focus on supporting special accommodations as needed for families and children with language, diverse abilities, or cultural diversity recognize the range of children who are now being served by early childhood classrooms and programs. Texas Rising Star places the idea of diversity at the center of program policy and curricular planning, reflecting the mindset of inclusion and cultural sensitivity that research and policy emphasize as necessary to actualizing the promise of preschool for all children. Texas Rising Star seeks to see evidence of planning for and accommodating children with special needs—particularly high-incidence disabilities, children from varied cultural backgrounds, and children who are learning English as a second language. This idea—of embedded accommodations to the mainstream curricular activities—is important and reflects leading thinking on how to create preschool learning environments that offer the most promise to all children (Schoch et al., 2023).

Nutrition and Health

Environmental factors affect children’s development and obesity risk during their early years, when eating, physical activity, and sleep habits are developing (Ayala et al., 2021). These habits continue to influence obesity, health, and well-being throughout life. The Institute of Medicine’s (IOM) policy recommendations to prevent obesity in infancy and early childhood by encouraging a healthy early environment in settings outside the home include:

- Increase physical activity in young children.
- Decrease sedentary behavior in young children.
- Help adults increase physical activity and decrease sedentary behavior in young children.
- Promote the consumption of a variety of nutritious foods and encourage and support breastfeeding during infancy.

- Create a healthy eating environment that is responsive to children's hunger and fullness cues.
- Help adults increase children's healthy eating.
- Promote age-appropriate sleep durations among young children.

Childhood obesity rates in the United States have more than doubled in the past three decades (Sanyaolu et al., 2019). The National Health and Nutrition Survey data in 2015–2016 showed that 13.9% of children ages 2 to 5 years were classified as obese, a rate that rose to 18.4% in children ages 6 to 11 years and to 20.4% among adolescents ages 12 to 19 years (Sanyaolu et al, 2019). According to CDC statistics from 2022, rates of obesity fell among young children and rose for older children and adolescents: to 12.7% for ages 2 to 5 years, 20.7% for ages 6 to 11 years, and 22.2% for ages 12 to 19 years. In general, obesity rates fell as income levels rose.

Obesity occurs over time. Young children with excess weight may not be able to move well, hindering their normal levels of growth. Children who are overweight have a higher risk for obesity in later life than children who are at normal weight; about 55% of children with obesity go on to have obesity as adolescents. (Simmonds et al., 2016). The World Health Organization (WHO) has cited childhood obesity as the most serious challenge of the 21st century, with 38 million children worldwide affected in 2017.

Children learn lifestyles from adults. Responsive caregiving is an effective tool that encourages children's social, emotional, cognitive, and physical growth, health, and development (Nguyen et al., 2022; Scherer et al., 2019). Learning what foods to offer each age group of children in care is very important (Gato-Moreno et al., 2021). For example, offering a 3-month-old baby breastmilk or formula is more appropriate than offering pureed foods (AAP, 2023). Children develop food and flavor preferences based on the foods they are exposed to when they are young (Nekitsing et al., 2018). These preferences will influence food choices throughout life. Many young children can regulate their food intake; for example, infants will turn away when full.

Relevance to Texas Rising Star

The measures within Texas Rising Star related to Nutrition require that programs, to include home-based providers, have written policies relating to breast feeding, food temperature control, healthy snacks menus (e.g., milk, fruit, vegetables, etc.), allergy information with protocols to ensure children are protected, and that food served to children is commercially prepared or that kitchens follow local health inspections. Additionally, the measures encourage programs

to demonstrate added health and nutrition policies to support whole child development. These policies may include menu planning, oral health, farm to table, or screen time policies and resources, specific professional development for families and staff, provision of free health screenings, working with a certified child care health consultant, and more. Some details:

- **Physical health and nutrition:** Menu planning is necessary to ensure that children are provided with a variety of food as recommended by the Dietary Guidelines for Americans 2020–2025 established by the United States Department of Agriculture (USDA) and HHS, which specifies healthy nutrition for infants, toddlers, children, and adolescents. To benefit infants, designated breastfeeding areas in the facility or classroom are desired. The farm-to-school movement helps connect local food producers with facilities to put more fresh food on children’s menus while teaching them how it helps their bodies.
- **Direct services:** Hearing and vision screenings at specified ages are required by Texas law. In addition, oral health is an important part of overall health and is linked to nutrition. Good oral health habits can be modeled in the facility and information can be supplied to parents. More than half of children ages 6 to 8 years have had a cavity in at least one baby tooth (CDC, 2024) and there are disparities in access to preventive dental care among various groups of children (Pediatrics, 2023).
- **Resources that directly benefit both staff and families:** Specific professional development programs; work with certified child-care health consultants to review nutrition and health policies.
- **Resources the facility provides to parents:** Information about obtaining health care benefits and food assistance. Recommendations for setting family guidelines for screen-time usage (an excessive use of screens can affect cognitive, social, and emotional growth and decrease the amount of interaction between child and caregivers [Cureus, 2023]).

The interaction measures within Texas Rising Star also highlight that children should feed themselves, when appropriate, and should not be hurried to finish meals. A healthy daily fluid intake should also be maintained (Lott et al., 2019). Conversations with children should occur throughout the day and cover a variety of topics, depending on what the child is doing at the time. Specifically, at mealtime, children should have opportunities to sit with friends and caregivers, who can engage them by talking about such things as how vegetables are grown, or the nutrients in the foods they are eating. During this time, caregivers should model dining etiquette and

self-regulation skills; children can easily model such behaviors as trying new foods or stopping when they are full. When interacting with infants during mealtime, caregivers should ensure infants are fed based on their hunger cues unless a physician or parent has provided written instruction to feed at other times, as well as observe and honor satiation indicators for babies. Texas Rising Star believes caregivers who provide for the nutritional and health activities of the children they serve are supporting the development of the whole child through direct interactions as well as policies and resources provided.

Texas Rising Star believes caregivers who provide for the nutritional and health activities of the children they serve are supporting the development of the whole child; such measures can include meal planning, exercise-based play, and consultation with a professional about how to continue to improve their routines.

Curriculum

The importance placed on early childhood curricula has increased substantially in the past 20 years (Haslip & Gullo, 2018). The availability of evidence-based curricular tools is one clear indicator of this point. For example, the Institute of Education Sciences' (IES) What Works Clearinghouse currently posts 114 intervention reports for preschool-appropriate curricula and programs, ranging from vocabulary to mathematics to early reading and social-emotional development. In addition, the idea that curriculum is a tool for promoting the quality of preschool programming is one that has received significant study and investment. In 2014, the initial four-year federal PDG program awarded 18 states a total of approximately \$1 billion in pursuit of the mandate to build or enhance a state preschool program and to expand such programs for all 4-year-olds in low- to moderate-income families (U.S. Department of Education, 2014). Of the 18 states, three selected from state-approved curriculum lists and the remaining 15 followed their state criteria for curriculum selection and assessment (U.S. Department of Education, 2018). The PDG guidelines required curricula to be evidence-based, comprehensive, and aligned with each state's early-learning and development standards. The PDG State Technical Assistance Report "Curriculum Policies and Guidelines of the Preschool Development and Expansion Grant Programs" concluded: "Research on various curriculum models is helping to clarify which models

address the essential elements of an effective curriculum that is more likely to impact outcomes at the child and classroom levels. This information should be considered in developing policies, guidelines, and practices” (Fonseca, 2016).

As the nation’s largest preschool program, Head Start uses a “whole-child” or “global” curriculum, serving the child’s needs from multiple directions: education, health, parent involvement, and social services. Other early childhood education curricula may focus on a single skill or “content-specific” plan: mathematics skills or reading ability, for instance. While there is no doubt that high-quality early childhood education benefits children’s learning and development, agreement on the best type of curricula for measured outcomes is difficult to come by (Jenkins et al., 2018).

The research evidence on early childhood curricula is mixed. The evaluation of curricula’s contribution is difficult to separate from other factors that affect children’s outcomes, (e.g., teacher and staff quality, professional development resources, income level of the child, differences in state requirements, or whether the child has a disability or is an English Language Learner). Some studies find significant and positive benefits of curricula on young children’s learning, while other studies find few or no positive results (Nguyen et al., 2018; Wood & Hedges, 2016). Yet characteristics of effective preschool programs consistently point toward the presence of curricula as a common element. The difference between curricula having an effect on outcomes, vs. having no effect, may lie in the way the curricula play out within the day-to-day of the classroom. For example, one of the largest federally funded projects on curricula, the Preschool Curriculum Evaluation Research (PCER) project, examined the significance of 14 different curricula on children’s learning. For all but one of the curricula examined, the benefits to children’s skills were nonexistent or minimal (i.e., a single, isolated skill). Interestingly, however, the research teams found that most of the curricula were not used as often or in the manner that was intended. Indeed, average ratings of fidelity typically fell in the “low” to “medium” range (1–2 points out of 4) for most programs. Collectively, findings seem to reiterate an important idea—that the influence of curricula is linked to its usage (IES, 2021; Nesbitt & Farran, 2021; Odom et al., 2019; Durkal & DuPre, 2008).

The idea that a curriculum will have an effect on children when it is used frequently and consistently makes sense when we look to key ideas about how children learn. For sustained learning to occur, children must build from the information they have, acquire strategies and approaches to learning, and acquire discrete skills that serve their growing understanding of specific “big ideas” (e.g., learning letters to understand the idea of print and reading; learning to

count while also gaining understanding of how numbers stand for quantity) (Committee on the Science of Children Birth to Age 8, Institute of Medicine and National Research Council, 2015). This type of synthesis and integration can take time and requires repetition—not rote repetition but meaningful exposures to an idea and skill across context and time (Björklund et al., 2020).

Relevance to Texas Rising Star

The measures within Texas Rising Star focused on curriculum emphasize the importance of using curricular tools in the classroom and supporting teachers in using curricular tools to plan. The key indicators within this measure emphasize the need for having a curricular tool or a set of tools that work to address the range of children’s development outcomes seen as most important to later school readiness and success. The approach to measuring curriculum reflects what the research emphasizes as important to the selection and use of a strong curriculum linked to developmental guidelines. That is, the indicators and higher level ratings within indicators point, collectively, to the importance of comprehensive curricula (or set of curricular tools) as well as the need for these tools to be central in guiding the daily experiences of the children.

Bringing Together the Texas Rising Star Guidelines for Curriculum into Classroom Planning

A formal and comprehensive curriculum can help teachers be intentional in their instruction across the days and weeks of school and across developmental areas. A curriculum helps teachers ensure their support to children’s learning is progressive, in that skills are building upon each other and supports are slowly faded to give children increasing independence.

However, a formalized curriculum may not be possible in all cases or, in some cases, there is a strong curricular framework in place that the teachers and program feel is working well for the children. In these cases, or even in the case of having adopted a formalized curriculum, it is important to ensure that curricular materials are used in ways that intentionally support children across key developmental areas. An important bridge between curricular materials and intentional teaching are lesson plans and teacher-child interactions. The sub-category, Instructional Formats and Approaches to Learning, refer to this alignment within Category 2: Teacher-Child Interactions.

Indoor/Outdoor Environment

A well-planned environment promotes and enhances children's development through learning and playing activities. It builds schedules, routines, and procedures to move children between activities and settings throughout the day. How the environment is developed directly influences children's understanding of cognitive, social, emotional, language, and physical skills (Berti et al, 2019). Enriching early childhood environments is important because young children's brain connections are developing rapidly in the first few years. Having intriguing, fun materials and experiences for children will provide them with tools for this development (Storli & Sandseter, 2018). Another reason for providing an enriching environment is the number of children affected and the amount of time they spend in care. In 2019, approximately 59% of children under age 5 not in kindergarten were in some type of care, and 62% of those were attending a child care center (NCES, 2019).

The physical environment includes both indoor and outdoor spaces that influence the way children feel, act, and behave. Both spaces include the materials and activities that teachers provide for the children to grow and develop. The physical environment is a result of teachers carefully planning and arranging the materials in the space so children can access activities independently. It should be well organized, clean, comfortable, and personable with a large variety of materials/manipulatives/toys for cognitive, social, emotional, and physical development (Tamblyn et al., 2023). It should include spaces where children can play with friends or alone without interference from other children.

“The physical environment should be well organized, clean, comfortable, and personable with a large variety of materials/manipulatives/toys for cognitive, social, emotional, and physical development.”
(Tamblyn et al., 2023)

Indoor Learning Environments

The physical environment will vary slightly depending on the ages of the children. The structural requirements include space to facilitate active and quiet learning, nap/resting time, child-initiated play under adult supervision, materials that are clean and in good repair, and all materials being available and accessible to all children (King et al., 2016). Classrooms with a literacy-rich focus include accessible books, meaningful print on the walls, and materials that encourage print and drawing so as to encourage motivation to achieve reading-oriented goals (Barber & Lutz Klauda, 2020). Infant classrooms have equipment for diapering, resting, and feeding. Many rooms designate a “clean area” for babies to be on the floor for recommended “tummy time” in order to explore toys, to look at, listen, feel, chew, pull, roll, and shake the things around them (Kerr et al., 2020). Diapering areas include items that enhance cognitive and communication skills. These items include hanging mobiles or colorful objects. It should include an area for caregivers and mothers to sit and hold infants while feeding (ECLKC, 2021).

As infants begin to move around and become toddlers, the classroom will need safe areas for eating, napping, diapering, toileting, and playing. Play now becomes very important. Since toddlers are on the move, they need lots of space to explore, experiment, and discover things around them. Teachers plan center activities that include materials and opportunities to pretend and act out books and events that children have experienced; build with blocks; read books; work puzzles; use manipulatives and science tools, soft furnishings, balls, toys that push and pull for gross motor skills; and draw with a variety of materials in an art area (Nilsen, 2021). Toddlers will need many opportunities to play and practice with these materials daily. Toys and other center materials need to be accessible and well organized for all children so that they spend time playing rather than trying to figure out where the materials are located (HHS, Child Care Technical Assist Network, n.d.).

Preschool classrooms will no longer need a diapering area. However, toileting is still a concern for some preschoolers. Classrooms with easy access to toileting facilities help foster autonomy. Learning centers contain materials and activities that are intentional, with connections to a theme and/or specific learning goals. These themes/learning goals change throughout the year.

Preschoolers are becoming more independent and can make choices about their learning. They also like to play in cozy, nook-like spaces. Room arrangement is important for preschoolers. Teachers will need to provide several activities in each center so that children have choices

while playing. Space should be arranged so that there are work areas for whole and small groups, eating, and napping. Since young children learn through play and repeated exposure to activities, caregivers should provide opportunities throughout the day and again throughout the year to readdress stories, books, games, and materials (Swanson & Towne, 2018; Sando, 2019). Well-planned and organized indoor learning environments are arranged in a way that helps provide guidance and direction for both children and teachers. Routines are established so children can play with other children or independently. Materials and equipment are clean, in good condition, and accessible. The arrangement of the classroom affects how children learn and play together. Setting up a classroom environment requires thought and strategic planning to provide a safe place for children to explore and learn. The overall design plays a significant role in the level of interaction and engagement for learning as well as providing support for children's social and emotional development and cognitive learning (Swanson & Towne, 2018; Yogman et al., 2018).

Classrooms should include space for centers that are planned and purposeful, as well as space for whole-group and small-group settings. Noisy and quiet centers are in separate areas in the room and nap/rest space is conducive for children to relax, rest, or sleep. Pictures around the room portray people in non-stereotypical and culturally sensitive manners. Child-created and caregiver-created learning materials are posted at a child's-eye level so that the information is relevant to the children. Materials/manipulatives are inviting and realistic when possible, to provide opportunities for social interactions, and are stimulating to encourage exploring all five senses (Hansen Sandseter et al., 2021). The role of print is highly important and plays a critical part in children's literacy development. Print-rich classrooms include opportunities for children of all ages to engage in activities that include hearing text read to them, using writing materials to draw and/or write about stories and ideas, and having books available that children can read on their own (Flint, 2018).

Materials and manipulatives are clean, labeled, and neatly arranged in open baskets on low shelves. The teacher should account for the age group that will use the space and how the layout and materials meet their developmental needs. Infants have space available for tummy time, active play, quiet play, and messy play. Feeding areas for babies should include comfortable chairs to hold infants while feeding or breastfeeding. Diapering areas have pictures or items to encourage conversations and build cognitive skills. Materials are appropriate and encourage stimulating opportunities for learning. These include soft blocks, rattles, push- and pull-toys, and colorful mobiles. Toddler classrooms are roomy and inviting with large cardboard/foam blocks, cloth/board books, wooden puzzles, dramatic play items, and creative supplies for art.

Preschoolers are becoming more independent and will enjoy activities in centers such as dramatic play, blocks/woodworking, sensory/discovery, music, manipulatives, puzzles, books, writing, and art. School-age areas are arranged to include a quiet place with tables, chairs, and lighting to facilitate completion of homework.

Let's look at a high-quality scenario:

Walking into the toddler classroom, children and parents are immediately greeted by the teacher with a warm smile and outreached arms for a morning hug. All children are encouraged to welcome other friends with a smile and hello. As children hug parents goodbye, the teacher encourages them to choose between two of the seven learning areas, library and blocks. While children are engaged in play at centers, diapering occurs for those children who need changing. At 7:45 a.m. breakfast arrives, the teacher starts a cleanup chant and the children put toys in baskets or near the baskets, then gather near the sink to wash hands and find seats around low tables and chairs. The teacher serves children food on sectioned plates so that it is appealing. He describes the items on their plates and asks the children to tell him how they taste. As children eat with forks and/or spoons, the teacher sits at the table and talks about the food they are eating and asks simple questions. As children finish with breakfast, the teacher assists with hand-washing and diapering. The children are roaming in an area of the room designed for large group play. There are three standing play structures with buttons that push, knobs that turn, mirrors that show reflections, and bells that ring. There is a short treehouse climbing structure with a slide. Glancing around the room, the children have access to several play areas with toddler-sized materials.

Pictures are posted on the walls showing people and places in the community. A bulletin board area has pictures of all the children's families, and each picture is labeled with names. A small carpet is positioned in one corner with a shelf that holds big blocks. Beside that area is a dramatic play area with a low, three-cubby-box shelf. In the boxes are cloth animal masks, a variety of hats, and a box of other props. Across the room is a cozy library with 12 to 15 mostly board books on a low bookshelf, a toddler-sized couch, and two toddler-sized stuffed animals. A low shelf near the window has a basket of magnifying glasses, sound tubes, a container with sand and funnels, connecting links, and a basket with a variety of textured cloth squares. After the teacher finishes diapering, he takes a book from the library and sits on the carpet. The children toddle over and sit by the teacher, and he starts reading, showing pictures, and talking about the animals on each page. Jevon brings the animal masks to the teacher. He starts using the masks to make animal sounds, and the children each want to wear one. As the teacher puts the masks on the children,

he makes the animal sounds. Some children move near the teacher and make animal sounds; other children toddle over to and continue playing with toys from the shelves. The teacher keeps singing a song with animal sounds with some children. Then he tells the children that it's time to play in learning areas and to crawl over to an area to play. The children continue to play with center toys. The teacher checks in with the children in centers and encourages those who are around him with activities to play.

In this scenario, the teacher has established routines and procedures with the children that help to keep them engaged and moving through the morning at a comfortable pace. The children are able to move freely around the room playing with materials and on play structures without negative directions given by the teacher. In centers, materials are at child's-eye level so that they can find activities that will engage their interest, and there are enough items for children to have choices about how they spend their time. The teacher is checking in with all the children throughout the morning. He uses songs and animal sounds to engage the children for a short period of time. He makes connections between the book he is reading, animal masks, and the sounds animals make. The classroom is friendly and organized for both the teacher and the children.

What research finds, however, is that many classrooms are not organized or do not provide materials for easy access. Often teachers are controlling all activities that children engage in during the day. In mid-range classrooms, teachers may be starting to arrange their space so that children can more easily access materials. Often teachers will designate three or four learning areas and think about having several activities for the children to possibly have a slight choice. Teachers may even group together loud areas and quiet areas. Materials and equipment will be mostly age-appropriate, clean, and in good condition on low, open shelving. Nap/rest, diapering, and feeding areas will be well-defined; however, the areas may lack cognitive activities. Some materials and equipment, maybe one to four items, will portray people in a non-stereotypical and culturally sensitive way. Some teacher- and child-created materials will be displayed at children's-eye level. These will include, but not be limited to, colorful and realistic pictures of nature, people and objects, family members, familiar places and people, and child artwork, labeled with children's names.

Mid-Level Scenario

Walking into the toddler classroom, children and parents are greeted with a smile and a wave from the teacher. Some children smile or say hi. As children hug parents goodbye, the teacher encourages the children to play with a few toys from a box in the middle of the floor. While

children are engaged in play with the toys, diapering occurs for those children who need changing. At 7:45 a.m. breakfast arrives and the children are asked to sit down at low tables and chairs. The teacher calls each child over to wash hands. Once the children have washed their hands, the teacher serves children food on sectioned plates. As children eat with forks and/or spoons, the teacher sits at the table. He asks children a few questions about how their food tastes but doesn't wait to hear answers that children give. As children finish with breakfast the teacher starts diapering. The children start roaming in an area of the room designed for large group play. The teacher glances over and tells the children to only play on the treehouse with its slide structure. There are also three other standing play structures with buttons that push, knobs that turn, mirrors that show reflections, and bells that ring. Glancing around the room, we see that the children have access to a few play areas with some toddler-sized materials. One wall has pictures of some of the children's families. A small carpet is positioned in one corner with a shelf that holds about 10 big blocks. Beside that area is a dramatic play area with a high shelving unit; on one of the shelves are two cloth animal masks and a few other play props. Across the room is a library with a low bookshelf with five to eight board and paperback books and a toddler-sized couch. After the teacher finishes diapering, he takes a book from the library and sits on the carpet. The children toddle over and sit by the teacher.

He starts reading, showing pictures, and talking about the animals on each page. Jevon brings the animal masks to the teacher, who tells him to put the masks in the box for later. Some children start to wiggle, and the teacher tells everyone to sit still. After he finishes reading the book, he tells the children where to go play so that there are two or three children in each center. The children continue to play with center toys.

In this scenario, the teacher is more directive and controlling over how and when the children play. The teacher seemed more interested in diapering and serving breakfast. Although he did read a book, he read it without asking questions or providing interesting ways for the children to relate to the story. When children didn't follow directions, the teacher reminded them to do what was right instead of providing more explanation and direction about how to play with their materials and each other.

There are a few activities and materials for the children to select for learning time. However, not all children had something that they chose. There wasn't evidence to support availability of real objects. Equipment/materials provided some opportunities for children to work alone or together; however, there was no evidence to support that materials were rotated or correlated to current learning objectives.

Low-Level Scenario

Walking into the toddler classroom, children and parents are greeted by the teacher with a hello. Some children are sitting around a table eating breakfast. As children hug parents goodbye, the teacher tells the children to go to the table. He asks the group if anyone wants more eggs. One child utters, “Uh-huh.” The teacher serves this child a small portion of eggs, then moves away. Once all children have finished eating, the teacher hands each child a cloth wipe and tells them to wash their hands. As children finish with wiping hands the teacher starts diapering. Children are told to sit still until it’s their turn to be changed. As each child is changed, the teacher tells that child to go play. The children start roaming in an area of the room designed for large group play. The teacher glances over and tells the children to “play nice.” Glancing around the room, the children have access to a few play areas with some toddler-sized materials and a play structure in the middle of the room. Two large posters of dogs are hanging on the walls. A small carpet is positioned in one corner with a shelf that holds about 10 big blocks. Beside that area is a dramatic play area with a box of two cloth animal masks and a few other play props. Across the room is a library bookshelf with five board and paperback books. After the teacher finishes diapering, he takes a book from the library and sits on the carpet. He tells the children to stop playing and come to sit around him. He starts reading, showing pictures and talking about the animals on each page. Jevon starts to stand; the teacher tells him to sit down cross-legged. After a few seconds Jevon sits, and the teacher continues reading. Some children start to wiggle, and the teacher tells everyone to sit still. After he finishes reading the book, he tells the children to go to the play structures. The teacher plays music very loudly. The children continue to play, sometimes pushing each other. The teacher starts changing diapers. While changing diapers, the teacher glances around the room. He tells the children to play nice with each other. He has to use a loud voice so children can hear him over the music. He finishes changing the child. When finished with one child, he goes and picks up another child to change. As he walks over to the changing table, he tells everyone, “Hurry, play. I’m almost finished changing diapers.”

In this scenario, the room environment has limited opportunities for children to experience a variety of materials/equipment. The play space has a few play areas with few realistic pictures around the room. Children are directed where to go and what to do. Little direction is given for play, resulting in possible misbehavior situations. Interaction among children and a lack of available materials causes children to become bored.

Relevance to Texas Rising Star

The measures within Texas Rising Star highlight the importance of designing an indoor environment that will promote positive teacher-child interactions and cognitive development for children. The key behaviors that mark a well-planned indoor environment include distinct division of active and quiet spaces and developmentally appropriate materials/equipment.

The Texas Rising Star program emphasizes the importance of developmentally appropriate materials organized to facilitate independent use and provide choices for children to engage in activities based on interest learning centers, such as literacy/creative writing, dramatic play/theater, art, blocks/woodworking, music/listening, sensory discovery/natural science, manipulative/table games/puzzles, a cozy area with soft furnishings, and gross-motor materials for preschool and school-age children. For infants, materials may include soft blocks, rattles, push- and pull-toys and colorful mobiles. For toddlers, materials may include large cardboard blocks, cloth books, wooden puzzles, dramatic-play items, and art supplies. People are portrayed in non-stereotypical and culturally diverse pictures, puppets, dolls, food, clothes, and stories. Texas Rising Star supports posting realistic pictures of families, pets, familiar places, and work created by children, arranging materials/equipment so that children can easily access them, and facilitating social interactions. The Texas Rising Star scoring allots higher scores in these areas when the environment provides a variety of opportunities and experiences for children to explore materials and equipment in fun and accessible ways that limit boredom and behavior issues.

The Texas Rising Star program emphasizes the importance of developmentally appropriate materials organized to facilitate independent use and provide choices for children to engage in activities based on interest learning centers, a cozy area with soft furnishings, and gross-motor materials for preschool and school-age children.

Outdoor Learning Environments

Just as teachers plan stimulating indoor classroom environments, time and thought should be put into planning for outdoor environments. Outdoor play allows for children to explore the world around them, increase their knowledge of living things, and have space to run and play games. Children who play outdoors develop cognitive and social/emotional skills. While outdoors, children use more of their senses to explore and experience their surroundings; if the outdoor environment has access to nature, it encourages physical activity (which can help fight obesity) as well as imaginative, constructive, and sensory play (Chawla, 2015).

Children can also be loud, messy, and silly while expending lots of energy that is usually not acceptable indoors (Bento & Dias, 2017). Learning from the indoors can often extend into outdoor time. Themes from the classroom can be used with activities and games that children play outdoors.

Outdoor environments should include living things such as nontoxic trees, flowers, plants, vines, and vegetables. Providing habitats like birdhouses and feeders will help children understand and appreciate living things. Young children use all their senses to learn about their world.

Outdoor environments should include living things such as nontoxic trees, flowers, plants, vines, and vegetables.

Outdoor environments offer many different opportunities for children to see, hear, smell, feel, and taste. Research has shown that young children should have daily opportunities to be active outdoors (CDC, 2023; Chawla, 2015). Young children are more active outdoors than indoors; play structures and activities that allow children to run, jump, climb, crawl, balance, hop, roll, and skip help support growing bodies and provide opportunities to burn calories (Clevenger & Pfeiffer, 2021). Infants having tummy time and exploration time outdoors will increase their understanding of sun, wind, plants, and space. Space outdoors should be inviting so that children want to be active rather than sedentary (Johnstone et al., 2022). Activities with portable playground toys such as balls or wheeled toys increase children's physical activity. Outdoor spaces with natural grass, trees, shrubbery, and dirt encourage children to play and interact with nature (Dankiw, 2020). Research shows that nature play encourages growth in children's curiosity, executive function skills, creative thinking, and resilience (Ernst & Burcak, 2019).

High-Level Scenario

Toddlers at Friendly Child Care are playing outside. Glancing around, we see that there is a playground with lots of space for running, hopping, skipping, and rolling on the grass. Along the perimeter of the space is a soft-paved, curvy path that branches in two directions toward the middle of the playground. Along the path are low traffic signs: stop and yield. In the corner of the play area is a parking lot with two tricycles and two domed push cars. In the middle of the play area is a large, canopy-covered climbing structure with a slide surrounded by mulch. Children are riding around the pathway, stopping at the stop sign and then moving on. To the right of the stop sign is a low bird feeder hanging from an extended hook connected to the fence. Some children are climbing on the play structure, laughing and singing songs from earlier learning. Along the fence is a low planting box with carrots, tomatoes, beans, and flowers. In one corner of the garden area is a birdbath filled with water. Kylie is leaning over to smell a flower and saying, “Pretty, flur.”

Teacher: (Walks over) What a pretty flower, it smells sweet. Kylie, do you remember something that is in our room that smells sweet?

Kylie: (Stops and looks toward the playground door) Hand bubbles.

Teacher: Yes, you are right. When we wash our hands, the soap smells like this flower. Great thinking. Do you want to water the flowers? (Child nods head.) Okay, where’s the watering can?

Kylie runs over to the water hose. The teacher turns on the water, fills the can, and hands it to Kylie.

Kylie: (Walks to the flowers and sprinkles the water while singing):
Grow, grow big flower.

The teacher turns toward the sandbox under the canopy. In the box are a variety of digging tools, buckets, a sifter. Marquee and Sonja are digging with shovels and filling a bucket together.

Sonja: This is a castle.

Teacher: How are you going to make that a castle?

Sonja: Dump it.

Teacher: Oh, you and Marquee are going to dump the bucket so that the sand can come out.

Sonja: It is together.

Teacher: Yes, when you dump the bucket the sand will be packed together so that it sticks and makes a castle.

The children start packing and adding sand in the bucket. Once the bucket is filled, they dump it upside down. The teacher says, “Wow, that’s a really big castle. What else are you doing with the castle?” The children look at each other. The teacher continues the conversation.

Teacher: Do you think you’ll need doors and windows? How will you add doors and windows?

Marquee: Like this (draws lines to make a door on one side).

Teacher: Great job adding a door.

Marquee: (Piling sand beside the castle) This is a house.

Teacher: Oh, you are adding a house beside the castle. Who lives in the house?

Marquee: Me.

Teacher: Who lives with you?

Marquee: Grandma.

Teacher: Grandma and you are living in the house together?

Marquee: I live in the castle too.

Teacher: So you have two places to live?

Marquee: Uh-huh.

Teacher: Well, that will be fun. You can visit Grandma and play in the big castle.

Marquee: Fun.

The teacher looks around the playground and notices that some children have gathered under the slide. She goes over to learn that they are watching a caterpillar crawl under the mulch.

In this scenario, children are playing in an outdoor environment that includes opportunities to enjoy the sounds, smells, and touch of living things and appreciate the beauty of nature such

as nontoxic flowers. Plants are growing along the perimeter, providing opportunities to care and appreciate. A large play structure is surrounded by mulch and soft pathways provide a variety of exposure to different outdoor materials. Children are motivated to climb, swing, crawl, and balance while interacting with one another in a fun and exciting way.

Low-Level Scenario

Toddlers at Friendly Child Care are playing outside. Glancing around the playground, we see that there is a little space for running, hopping, and skipping. Most of the playground is sparsely covered with grass. There is a child-sized log cabin playhouse near the back of the fence. Beside the cabin is a play box with sand. Growing inside the play box are several dandelions; there are a shovel and two plastic shoe boxes. Across from the cabin are one domed push car and a partly deflated ball. Beside the door to the center is a water hose. Several children are wandering around the playground looking at the ground or pulling grass. Two children are inside the play cabin looking out the window. Another child is pulling the dandelions and blowing the seeds. The teacher is standing by the center door telling the children to stop running. When a child wants a drink of water, she pours a cup and hands it to the child.

In this scenario, the contrast in quality is evident by the lack of opportunities provided for the children to engage in living/natural elements in the outdoor environment. Some outdoor equipment is available, but it is limited in who then will demonstrate challenging behaviors because of long wait times or undue competition for size and variation of activities that can be played. This lack of variation will result in bored children with the limited materials provided. This environment does not support play or social-emotional development.

Relevance to Texas Rising Star

The measures within Texas Rising Star provide an emphasis on outdoor learning environments that are linked to and reinforce indoor learning. Environments that provide a variety of natural elements such as nontoxic trees, shrubs or vines, ground coverings, smooth rocks, mulch, sand, grass, pebbles, wood or logs, garden plants, and birdhouses promote opportunities for children to interact and learn to care for living things. Materials/equipment are accessible for all children to use without undue competition or long wait times. Having a variety allows for children to make choices and supports social emotional development.

REFERENCES

- Administration for Children & Families, U.S. Department of Health & Human Services. (2024). *Preschool Development Birth through Five. Office of Early Childhood Development*. Retrieved from <https://www.acf.hhs.gov/ecd/early-learning/preschool-development-grants>
- Administration for Children & Families, U.S. Department of Health & Human Services. (2022). *National Survey of Early Care and Education 2019*. Office of Planning, Research & Evaluation. Retrieved from <https://www.acf.hhs.gov/opre/project/national-survey-early-care-and-education-2019-2017-2022>
- Administration for Children and Families, U.S. Department of Health and Human Services. (2020). *Dietary Guidelines for Americans 2020-2025*. Retrieved from https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf
- Akers, L., Del Grosso, P., Atkins-Burnett, S., Monahan, S., Boller, K., Carta, J., & Wasik, B. A. (2015). *What Do We Know—and What We Need to Find Out—About How Early Childhood Teachers Use Ongoing Assessment?* OPRE Brief #2015-60 Early Childhood Teachers' Use of Ongoing Child Assessment to Individualize Instruction. Retrieved from https://www.acf.hhs.gov/sites/default/files/documents/opre/what_do_we_know_about_how_early_childhood_teachers_use_ongoing.pdf
- Almeqdad, Q.I., Alodat, A.M., Alquraan, Mohaidat, M.A., & Al-Makhzoomy, A.K. (2023). The effectiveness of universal design for learning: A systematic review of the literature and meta-analysis. *Cogent Education*, 10:1. doi:10.1080/2331186X.2023.2218191 <https://www.tandfonline.com/doi/full/10.1080/2331186X.2023.2218191>
- Amadon, S., Lin, Y-C., & Padilla, C., M. (2023). *Turnover in the Center-based Child Care and Early Education Workforce: Findings from the 2019 National Survey of Early Care and Education*. OPRE Report #2023-061. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. https://www.acf.hhs.gov/sites/default/files/documents/opre/workforce_turnover_snapshot_apr2023.pdf
- Amadon, S., Maxfield, E., & McDoniel, M. (2023). *Wages of center-based child care and early education teachers: Findings from the 2019 National Survey of Early Care and Education*. OPRE Report #2023-062. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. https://www.acf.hhs.gov/sites/default/files/documents/opre/workforce_compensation_snapshot_apr2023.pdf
- American Academy of Pediatrics (AAP). *Patient Care: Infant Food and Feeding* (2023). <https://www.aap.org/en/patient-care/healthy-active-living-for-families/infant-food-and-feeding/>
- Anderson N.J., Graham, S.A., Prime, H., Jenkins, J.M., & Madigan, S. (2021). Linking Quality and Quantity of Parental Linguistic Input to Child Language Skills: A Meta-Analysis. *Child Development*. Mar 92(2):484-501. doi:10.1111/cde13508. <https://pubmed.ncbi.nlm.nih.gov/33521953/>
- Ang, L., Brooker, E., & Stephen, C. (2017). A Review of the Research on Childminding: Understanding Children's Experiences in Home-Based Childcare Settings. *Early Childhood Education Journal*. 45, 261–270. doi.org/10.1007/s10643-016-0773-2 <https://link.springer.com/article/10.1007/s10643-016-0773-2>
- Ansari, A. (2018). The Persistence of Preschool Effects from Early Childhood through Adolescence. *Journal of Educational Psychology*, Vol 110(7), Oct 2018, 952-973. doi: 10.1037/edu0000255. <https://pubmed.ncbi.nlm.nih.gov/30906008/>
- Avari, P., Hamel, E., Schachter, R.E., & Hatton-Bowers, H. (2022). Communication with families: Understanding the perspectives of early childhood teachers. *Journal of Early Childhood Research*, 21(3):1476718X2211407. doi:10.1177/1476718X221140747 https://www.researchgate.net/publication/366226892_Communication_with_families_Understanding_the_perspectives_of_early_childhood_teachers
- Ayala, G.X., Monge-Rojas, R., King, A.C., Hunter, R., & Berge, J.M. (2021). The social environment and childhood obesity: Implications for research and practice in the United States and countries in Latin America. *Obesity Reviews*. doi:10.1111/obr.13246. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8365653/>

- Baardstu, S., Coplan, R.J., Eliassen, E., Brandlistuen, & R.E., Wang, M.V. (2022). Exploring the Role of Teacher–Child Relationships in the Longitudinal Associations Between Childhood Shyness and Social Functioning at School: A Prospective Cohort Study. *School Mental Health*, 14, 984–996.
doi.org/10.1007/s12310-022-09518-1
<https://link.springer.com/article/10.1007/s12310-022-09518-1>
- Baker, T. L., Wise, J., Kelley, G., & Skiba, R. J. (2016). Identifying barriers: Creating solutions to improve family engagement. *School Community Journal*, 26(2), 161-184.
<http://files.eric.ed.gov/fulltext/EJ1124003.pdf>
- Bakken, L., Brown, N., & Downing, B. (2017). Early Childhood Education: The Long-Term Benefits, *Journal of Research in Childhood Education*, 31:2, 255-269. doi: 10.1080/02568543.2016.1273285
<https://www.tandfonline.com/doi/full/10.1080/02568543.2016.1273285>
- Barajas-Gonzalez, R.G., Ursache, A., Kamboukos, D., Huang, K-Y., Torres, H.L., Cheng, S., Olson., D., Miller Brotman., L., & Dawson-McClure, S. (2024). Latinx parent engagement and school readiness. *Journal of Early Childhood Research*. doi. org/10.1177/1476718X241231
<https://journals.sagepub.com/doi/10.1177/1476718X241231674>
- Barnes, J. K., Guin, A., Allen, K., & Jolly, C. (2016). Engaging Parents in Early Childhood Education: Perspectives of Childcare Providers. *Family and Consumer Sciences Research Journal*, 44(4), 360–374. doi:10.1111/fcsr.12164
<https://sci-hub.st/https://doi.org/10.1111/fcsr.12164>
- Barnett, M.A., Paschall, K.W., Mastergeorge, A.M., Cutshaw, C.A., & Warren, S.M. (2020). Influences of Parent Engagement in Early Childhood Education Centers and the Home on Kindergarten School Readiness. *Early Childhood Research Quarterly*, Vol 53, 260-273. doi.org/10.1016/j.ecresq.2020.05.005.
<https://www.sciencedirect.com/science/article/pii/S0885200620300454>
- Barton, E. E., & Smith, B. J. (2015). Advancing High-Quality Preschool Inclusion: A Discussion and Recommendations for the Field. *Topics in Early Childhood Special Education*, 35(2), 69–78. doi:10.1177/0271121415583048
<https://journals.sagepub.com/doi/10.1177/0271121415583048>
- Bassok, D., Markowitz., A.J., Bellows, L., Sadowski, K. (2021). New Evidence on Teacher Turnover in Early Childhood. *Educational Evaluation and Policy Analysis*, 43(1).
doi.org/10.3102/0162373720985340
<https://journals.sagepub.com/doi/10.3102/0162373720985340>
- Bassok, D., Doromal, J.B., Michie, M., & Wong, V.C. (2021). The Effects of Financial Incentives on Teacher Turnover in Early Childhood Settings: Experimental Evidence from Virginia. Findings from Virginia's PDG-5 Recognition Program.
<https://files.elfsightcdn.com/022b8cb9-839c-4bc2-992e-cefccb8e877e/6de6fd54-e921-4c88-a452-ad7cabccc362.pdf>
- Bassok, D., Doromal, J.B., Michie, M., & Wong, V.C. (2021). Reducing Teacher Turnover in Early Childhood Setting: Findings from Virginia's PDG-5 Recognition Program.
http://www.see-partnerships.com/uploads/1/3/2/8/132824390/pdg_teacher_turnover_study_summary.pdf
- Beisly, A. H., & Lake, V. E. (2020). Knowledge of child development: Associations among pre-service teachers' level of education and work experience. *Journal of Early Childhood Research*, 1476718X2094294. doi:10.1177/1476718x20942948
<https://journals.sagepub.com/doi/10.1177/1476718X20942948>
- Bento, G., Dias, G. (2017). The importance of outdoor play for young children's healthy development. *Porto Biomedical Journal*, 2(5): 157-160. doi: 10.1016/j.pbj.2017.03.003
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6806863/>
- Berti, S., Cigala, A., & Sharma, N. (2019). Early Childhood Education and Care Physical Environment and Child Development: State of the art and Reflections on Future Orientations and Methodologies. *Educational Psychology Review*. doi:10.1007/s10648-019-09486-0
<https://link.springer.com/article/10.1007/s10648-019-09486-0>
- Bettencourt, A.F., Gross, D., Bower, K., Francis, L., Taylor, K., Singleton, D.L., Han, H-R. (2020). Identifying Meaningful Indicators of Parent Engagement in Early Learning for Low-Income, Urban Families. *Urban Education*, 58(10). doi.org/10.1177/0042085920968619
<https://journals.sagepub.com/doi/10.1177/0042085920968619>
- Berman, L.L., Morris, P.A., Abenavoli, R.M. (2017). *Parent Engagement Practices Improve Outcomes for Preschool Children*. Child Care & Early Education Research Connections, Administration for Children and Families, United States Department of Health and Human Services.
<https://researchconnections.org/childcare/resources/34225>

- Blair, C., Raver, C.C. (2015). School readiness and self-regulation: a developmental psychobiological approach. *Annual Review of Psychology*, 66:711-31 doi:10.1146/annurev-psych-010814-015221.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4682347/>
- Blewitt, C., O'Connor, A., Morris, H., May, T., Mousa, A., Bergmeier, H., Nolan, A., Jackson, K., Barrett, H., & Skouteris, H. (2021). A systematic review of targeted social and emotional learning interventions in early childhood education and care settings. *Early Child Development and Care*, 191(14), 2159–2187. doi.org/10.1080/03004430.2019.1702037
<https://www.tandfonline.com/doi/full/10.1080/03004430.2019.1702037>
- Blewitt, C., O'Connor, A., Morris, H., Nolan, A., Mousa, A., Green, R., Ifanti, A., Jackson, K., & Skouteris, H. (2021). "It's Embedded in What We Do for Every Child": A Qualitative Exploration of Early Childhood Educators' Perspectives on Supporting Children's Social and Emotional Learning. *International Journal of Environmental Research and Public Health*, 18(4):1530. doi: 10.3390/ijerph18041530
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7914528/#:~:text=Research%20evidence%20shows%20early%20childhood%20educators%20can%20strengthen,families%2C%20and%20communities%20%5B%2029%2C%2030%2C%2031%20%5D>
- Boekaerts, M. (2016). Engagement as an inherent aspect of the learning process. *Learning and Instruction*, Vol. 43, 76-83. <https://doi.org/10.1016/j.learninstruc.2016.02.001>.
<https://www.sciencedirect.com/science/article/abs/pii/S0959475216300147?via%3Dihub>
- Boonk, L., Hieronymus, J.M.G., Ritzen, H., Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review*, Vol. 24, 10-30. <https://doi.org/10.1016/j.edurev.2018.02.001>.
<https://www.sciencedirect.com/science/article/pii/S1747938X18301027>
- Bonnes Bowne, J., Magnuson, K.A., Schindler, H.S., Duncan, G.J., & Yoshikawa, H. (2017). A Meta-Analysis of Class Sizes and Ratios in Early Childhood Education Programs: Are Thresholds of Quality Associated with Greater Impacts on Cognitive, Achievement, and Socioemotional Outcomes? *Educational Evaluation and Policy Analysis*, 39(3), 407-428. doi:10.3102/0162373716689489
<https://journals.sagepub.com/doi/pdf/10.3102/0162373716689489>
- Bosire, J.P.O., Gallagher, K.C., Garrett, A.L. & Babchuk, W. (2023). Early childhood leadership well-being: A phenomenological examination of workplace stress and supports. *Journal of Early Childhood Research*, 21(4). doi.org/10.1177/1476718X231164131
<https://journals.sagepub.com/doi/10.1177/1476718X231164131>
- Bratsch-Hines, M.E., Carr, R., Zgourou, E., Vernon-Feagans, L., Willoughby, M. (2020). Infant and Toddler Child-Care Quality and Stability in Relation to Proximal and Distal Academic and Social Outcomes. *Child Development*, 91(6), 1854-1864. doi.org/10.1111/cdev.13389
<https://srcd.onlinelibrary.wiley.com/doi/10.1111/cdev.13389>
- Brock, L.L., Curby, T.W., Cannell-Cordier, A.L. (2018). *Consistency in Children's Classroom Experiences and Implications for Early Childhood Development*. In: Mashburn, A., LoCasale-Crouch, J., Pears, K. (eds) Kindergarten Transition and Readiness. Springer, Cham. doi.org/10.1007/978-3-319-90200-5_3
https://link.springer.com/chapter/10.1007/978-3-319-90200-5_3#citeas
- Brums, J., Gasteiger, H., Strahl, C. (2021). Conceptualising and measuring domain-specific content knowledge of early childhood educators: A systematic review. *Review of Education*, 9(2), 500-538. doi.org/10.1002/rev3.3255
<https://bera-journals.onlinelibrary.wiley.com/doi/10.1002/rev3.3255>
- Brunsek, A., Perlman, M., McMullen, E., Falenchuk, O., Fletcher, B., Nocita, G., Kamkar, N., Shah, P.S. (2020). A meta-analysis and systematic review of the associations between professional development of early childhood educators and children's outcomes. *Early Childhood Research Quarterly*, 53:217-248. doi.org/10.1016/j.ecresq.2020.03.003.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200620300284?via%3Dihub>
- Bryant, D., Yazejian, N., Jang, W., Kuhn, L., Hirschstein, M., Soliday Hong, S.L., Stein, A., Bingham, G., Carpenter, K., Cobo-Lewis, A., Encinger, A., Fender, J., Green, S., Greenfield, D., Jones Harden, B., Horm, D., Jackson, B., Jackson, T., Raikes, H., Rasher, S., Resnick, G., Spieker, S., Stoiber, K., Sweet-Darter, M., Tokarz, S., Walker, D., White, L., Wilcox, J. (2023). Retention and turnover of teaching staff in a high-quality early childhood network. *Early Childhood Research Quarterly*, 65:159-169. doi.org/10.1016/j.ecresq.2023.06.002.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200623000790>
- Bulotsky-Shearer, R.J., Fernandez, V.A., Bichay-Awadalla, K., Bailey, J., Futterer, J., & Qui, C.H. (2020). Teacher-child interaction quality moderates social risks associated with problem behavior in preschool classroom contexts. *Journal of Applied Developmental Psychology*, Vol. 67. doi.org/10.1016/j.appdev.2019.101103.
<https://www.sciencedirect.com/science/article/abs/pii/S0193397319301911>
- Burgess, C.C. (2023). Educator understanding of self-regulation and implications for classroom facilitation: A mixed methods study. *Journal of Early Childhood Research*, 21(4). doi.org/10.1177/1476718X2311866
<https://journals.sagepub.com/doi/10.1177/1476718X231186613>

- Burke Hadley, E., Barnes, E.M., Wiernik, B.M. & Raghavan, M. (2022). A meta-analysis of teacher language practices in early childhood classrooms. *Early Childhood Research Quarterly* Vol. 59, 2Q, 186-202. doi.org/10.1016/j.ecresq.2021.12.002.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200621001460>
- Bustamante, A.S., Dearing, E., Zachrisson, H.D., & Vandell, D. (2021). Adult outcomes of sustained high-quality early child care and education: Do they vary by family income? *Child Development*, 93(2), 502-523. doi.org/10.1037/dev0001546 <https://srcd.onlinelibrary.wiley.com/doi/full/10.1111/cdev.13696>
- Bustamante, A.S., Bermudez, V.N., Ochoa, K.D., Belgrave, A.B., & Vandell, D.L. (2023). Quality of early childcare and education predicts high school STEM achievement for students from low-income backgrounds. *Developmental Psychology*, 59(8), 1440–1451. doi. org/10.1037/dev0001546
<https://psycnet.apa.org/record/2023-76412-001?doi=1>
- Cade, J., Wardle, F. & Otter, J. (2022). Quality early care and learning: Exploring child-centered pedagogy a qualitative multi-case study, *Cogent Education*, 9:1. doi: 10.1080/2331186X.2022.2144589
<https://www.tandfonline.com/doi/full/10.1080/2331186X.2022.2144589>
- Cameron, C.E., Kim, H., Duncan, R.J., Becker, D.R. & McClelland, M.M. (2019). Bidirectional and co-developing associations of cognitive, mathematics, and literacy skills during kindergarten. *Journal of Applied Developmental Psychology*, Vol. 62, 135-144. doi.org/10.1016/j. appdev.2019.02.004.
<https://www.sciencedirect.com/science/article/abs/pii/S0193397318301795?via%3Dihub>
- CAST (formerly Center for Applied Special Technology). (2011). Universal Design for Learning (UDL) Guidelines version 2.
<https://www.sstr2.org/Downloads/udl%20guidelines.pdf#:~:text=Universal%20Design%20for%20Learning%20%28UDL%29%20is%20a%20framework,inflexible%20curricula%20that%20raise%20unintentional%20barriers%20to%20learning>
- Child Care Technical Assistance Network, Office of Child Care, Administration for Children & Families, United States Department of Health & Human Services (n.d.) *Infant/Toddler Resource Guide*, Preparing the Environment.
<https://childcareta.acf.hhs.gov/infant-toddler-resource-guide/infanttoddler-care-providers/nurturing-environments/preparing>
- Center for the Study of Child Care Employment (CSCCE) (2020). Early Educator Pay & Economic Insecurity Across the States. *Early Childhood Workforce Index 2020*.
<https://cscce.berkeley.edu/workforce-index-2020/the-early-educator-workforce/early-educator-pay-economic-insecurity-across-the-states/>
- Center for the Study of Child Care Employment (CSCCE) (2020). State Policies to Improve Early Childhood Educator Jobs. *Early Childhood Workforce Index 2020*.
<https://cscce.berkeley.edu/workforce-index-2020/state-policies-to-improve-early-childhood-educator-jobs/early-childhood-educator-workforce-policies/work-environment-standards/#:~:text=For%20example%2C%20only%20one-half%20%2850%20percent%29%20of%20teaching,hours%20or%20doing%20their%20planning%20during%20unpaid%20hours.>
- Centers for Disease Control and Prevention (CDC). (n.d.) *Childhood Obesity Facts 2017-2020*.
<https://www.cdc.gov/obesity/data/childhood.html>
- Centers for Disease Control and Prevention (CDC). (2023). *Outdoor Play and Safety for Children in ECE*.
<https://www.cdc.gov/earlycare/resources/outdoor-play-and-safety.html>
- Chawla, L. (2015). Benefits of Nature Contact for Children. *Journal of Planning Literature*, 30(4): 433-452. doi. org/10.1177/0885412215595441
<https://journals.sagepub.com/doi/10.1177/0885412215595441>
- Chernicoff, L., & Labra, D. (2024). The Educators We Can Be: Supporting Social-Emotional Competence in Mexican Preschools, *Childhood Education*, 100:1, 28-36.
doi: 10.1080/00094056.2024.2307853
<https://www.tandfonline.com/doi/full/10.1080/00094056.2024.2307853>
- Clayback, K.A. & Hemmeter, M.L. (2021). Exclusionary discipline practices in early childhood settings: A survey of child care directors. *Early Childhood Research Quarterly*, Vol. 55, 129-136.
doi.org/10.1016/j.ecresq.2020.11.002.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200620301290?via%3Dihub>
- Clevenger, K.A. & Pfeiffer, K.A. (2021). Teacher-report of where preschool-aged children play and are physically active in indoor and outdoor learning centers. *Journal of Early Childhood Research*, 20(1). doi.org/10.1177/1476718X2110336
<https://journals.sagepub.com/doi/10.1177/1476718X211033641>

- Colker, L.J. (2014). The Word Gap: The Early Years Make the Difference. *Teaching Young Children*, 7(3). National Association for the Education of Young Children.
<https://www.naeyc.org/resources/pubs/tyc/feb2014/the-word-gap#:~:text=A%20recent%20study%20shows%20that%20the%20vocabulary%20gap,has%20grown%20significantly%20%28Fernald%2C%20Marchman%2C%20%26%20Weisleder%202013%29>
- Committee on the Science of Children Birth to Age 8. (2015). Deepening and Broadening the Foundation for Success; Board on Children, Youth, and Families; Institute of Medicine; National Research Council. *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*. National Academies Press (US).
<https://pubmed.ncbi.nlm.nih.gov/26269871/>
- Cumming, T. (2016). *Early Childhood Educators' Well-Being: An Updated Review of the Literature*. *Early Childhood Education Journal*, 45(5), 583–593. doi:10.1007/s10643-016-0818-6
<https://sci-hub.st/10.1007/s10643-016-0818-6>
- Cutler, L., Schachter, R.E., Gabas, C., Piasta, S.B., Purtell, K.M. & Helsabeck, N.P. (2023). Patterns of Classroom Organization in Classrooms Where Children Exhibit Higher and Lower Language Gains, *Early Education and Development*, 34:5, 1128-1146. doi:10.1080/10409289.2022.2106766
<https://www.tandfonline.com/doi/full/10.1080/10409289.2022.2106766#>
- Cutshaw, C.A., Mastergeorge, A.M., Barnett, M.A. & Paschall, K.W. (2022). Parent engagement in early care and education settings: relationship with engagement practices and child, parent, and centre characteristics. *Early Child Development and Care*, 192(3), 442-457. doi.org/10.1080/03004430.2020.1764947
<https://www.tandfonline.com/doi/full/10.1080/03004430.2020.1764947>
- Cyck, L.M., De Anda, S., Moore, H. & Huerta, L. (2021). Cultural and Linguistic Adaptations of Early Language Interventions: Recommendations for Advancing Research and Practice. *American Journal of Speech-Language Pathology*, 30(3):1224-1246. doi:0.1044/2020_AJSLP-20-00101.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8702869/>
- Cyck, L.M. & Scheffner Hammer, C. (2020). Beliefs, values, and practices of Mexican immigrant families towards language and learning in toddlerhood: Setting the foundation for early childhood education. *Early Childhood Research Quarterly*, 52(A) 25-37. doi.org/10.1016/j.ecresq.2018.09.009.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200617301710>
- Dereli, F., Türk Kurtça, T. (2023). Family Engagement in Early Childhood Education: A Phenomenological Study. *International Journal of Psychology and Educational Studies*, 10(3), 714-732. doi:10.52380/ijpes.2023.10.3.1232.
https://www.researchgate.net/publication/372841489_Family_Engagement_in_Early_Childhood_Education_A_Phenomenological_Study
- Deshmukh, R.S., Pentimonti, J.M., Zucker, T.A. & Curry, B. (2022). Teachers' Use of Scaffolds Within Conversations During Shared Book Reading. *Language, Speech and Hearing Services in Schools*, 53(1):150-166. doi.org/10.1044/2021_LSHSS-21-00020.
https://pubs.asha.org/doi/10.1044/2021_LSHSS-21-00020
- Dias-Broens, A.S. & van Steensel, R. (2023). Home-Visiting in a Shared Reading Intervention: Effects on Children from Low SES and Ethnic Minority Families. *Early Education and Development*, 34:8, 1919-1940. doi:10.1080/10409289.2022.2123294
<https://www.tandfonline.com/doi/full/10.1080/10409289.2022.2123294>
- Dikilitas, K., Bahrami, V. & Tugce Erbakken, N. (2023). Bilingual education teachers and learners in a preschool context: Instructional and interactional translanguaging spaces. *Learning and Instruction*, Vol. 86. doi.org/10.1016/j.learninstruc.2023.101754.
<https://www.sciencedirect.com/science/article/pii/S0959475223000233>
- Dankiw, K.A., Tsiros, M.D., Baldock, K.L. & Kumar, S. (2020). The impacts of unstructured nature play on health in early childhood development: A systematic review. *PLoS One*, 15(2). doi: 10.1371/journal.pone.0229006
<https://pubmed.ncbi.nlm.nih.gov/32053683/>
- Donoghue, E.A., Council on Early Childhood, Lieser, D., DelConte, B., Earls, M., Glassy, D., Mandelsohn, A., McFadden, T., Scholer, S., Takagishi, J., Vanderbilt, D.D & Williams, G. (2017). Quality Early Education and Child Care From Birth to Kindergarten. *Pediatrics*, 140(2). doi.org/10.1542/peds.2017-1488
<https://publications.aap.org/pediatrics/article/140/2/e20171488/38652/Quality-Early-Education-and-Child-Care-From-Birth?autolog-incheck=redirected>
- Duncan, R.J., Anderson, K.L., King, Y.A., Finders, J.K., Schmitt, S.A., & Purpura, D.J. (2023). Predictors of preschool language environments and their relations to children's vocabulary. *Infant and Child Development*, 32(1). doi.org/10.1002/icd.2381
<https://onlinelibrary.wiley.com/doi/pdf/10.1002/icd.2381>

- Dunekacke, S., & Barenthien, J., (2021). Research in early childhood teacher domain-specific professional knowledge: A systematic review. *European Early Childhood Research Journal*, 29(4): 633-648. doi: 10.1080/1350293X.2021.1941166
<https://www.tandfonline.com/doi/full/10.1080/1350293X.2021.1941166>
- Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*, 41(3-4): 327-350. doi.org/10.1007/s10464-008-9165-0
<https://psycnet.apa.org/record/2008-06464-014>
- DuShane, D. & SeonYeong, Y. (2023). Preschool and Childcare Expulsion: A Review of the Literature. *Infants & Young Children*, 36(3): 177-194. doi: 1097/IYC.0000000000000245
https://journals.lww.com/iycjournal/abstract/2023/07000/preschool_and_childcare_expulsion_a_review_of_the.2.aspx
- Eadie, P., Page, J., Levickis, P., Elek, C., Murray, L., Wang, L. & Lloyd-Johnsen, C. (2022). Domains of quality in early childhood education and care: A scoping review of the extent and consistency of the literature, *Educational Review*, 1-30. doi: 10.1080/00131911.2022.2077704
<https://www.tandfonline.com/doi/full/10.1080/00131911.2022.2077704>
- Einarsdottir, J. & Jónsdóttir, A.H. (2019). Parent-preschool partnership: many levels of power, *Early Years*, 39:2, 175-189. doi:10.1080/09575146.2017.1358700
<https://www.tandfonline.com/doi/full/10.1080/09575146.2017.1358700>
- Elek, C. & Page, J. (2018). Critical features of effective coaching for early childhood educators: A review of empirical research literature. *Professional Development in Education*, Vol. 45, 567-585. doi.org/10.1080/19415257.2018.1452781
<https://www.tandfonline.com/doi/full/10.1080/19415257.2018.1452781>
- Elek, C., Gray, S., West, S. & Goldfeld, S. (2021). Effects of a professional development program on emergent literacy-promoting practices and environments in early childhood education and care. *Early Years*, 42(1): 88-103. doi.org/10.1080/09575146.2021.1898342
<https://www.tandfonline.com/doi/full/10.1080/09575146.2021.1898342>
- Ellis, E., Reupert, A., & Hammer, M. (2023). 'We Were All Green and Brand New': Mentoring in Theories of Child Development for Australian Early Career Preschool Teachers. *Australian Journal of Teacher Education*, 48(3). doi.org/10.14221/1835-517X.5875
<https://ro.ecu.edu.au/ajte/vol48/iss3/1/>
- Ernst, J. & Burcak, F. (2019). Young Children's Contributions to Sustainability: The Influence of Nature Play on Curiosity, Executive Function Skills, Creative Thinking, and Resilience. *Sustainability*, 11(15):4212. doi.org/10.3390/su11154212
https://www.researchgate.net/publication/334969008_Young_Children%27s_Contributions_to_Sustainability_The_Influence_of_Nature_Play_on_Curiosity_Executive_Function_Skills_Creative_Thinking_and_Resilience
- Eshelman, V.T., Lieberman-Betz, R.G., Vail, C.O. & Brown, J.A. (2023). An examination of patterns of caregiver responsiveness and toddler communication in early childhood classrooms. *Journal of Early Childhood Teacher Education*, 44:1, 80-94. doi:10.1080/10901027.2021.2005189
<https://www.tandfonline.com/doi/full/10.1080/10901027.2021.2005189>
- Fee, K.D. (2024). Using worker flows to assess the stability of the early childcare and education workforce, 2010-2022. Community Development Reports, Federal Reserve Bank of Cleveland. doi.org/10.26509/frbc-cd-20240119
<https://researchconnections.org/childcare/resources/176256>
- Feldman, H.M. (2019). The Importance of Language-Learning Environments to Child Language Outcomes. *Pediatrics*, 144(4). doi.org/10.1542/peds.2019-2157
<https://publications.aap.org/pediatrics/article/144/4/e20192157/38463/The-Importance-of-Language-Learning-Environments>
- Fernández-Santín, M. & Feliu-Torruella, M. (2020) Developing critical thinking in early childhood through the philosophy of Reggio Emilia. *Thinking Skills and Creativity*, Vol 37. doi.org/10.1016/j.tsc.2020.100686
<https://www.sciencedirect.com/science/article/abs/pii/S1871187120301607>
- Flint, T.K. (2020). Responsive Play: Creating Transformative classroom spaces through play as a reader response. *Journal of Early Childhood Literacy*, Vol. 20, Issue 2. doi.org/10.1177/1468798418763991
<https://journals.sagepub.com/doi/10.1177/1468798418763991>
- Flückiger, B., Dunn, J., & Stinson, M. (2018). What supports and limits learning in the early years? Listening to the voices of 200 children. *Australian Journal of Education*, 62(2): 94-107. doi:10.1177/0004944118779467
<https://journals.sagepub.com/doi/10.1177/0004944118779467>

- Flynn, E.E. (2024). Supporting language diversities through story circles. *Journal of Early Childhood Research*. doi: [org/10.1177/1476718X231221367](https://journals.sagepub.com/doi/10.1177/1476718X231221367)
<https://journals.sagepub.com/doi/10.1177/1476718X231221367>
- Fonseca, M. (2016). *Curriculum Policies and Guidelines of the Preschool Development and Expansion Grant Programs*. Child Care and Early Education Research Connections. Retrieved from <https://files.eric.ed.gov/fulltext/ED583132.pdf>
- Fonsén, E., Szecsi, T., Kupila, P., Liinamaa, Y., Halpern, C. & Repo, M. (2023). Teachers' pedagogical leadership in early childhood education. *Educational Research*, 65(1), 1-23. doi:10.1080/00131881.2022.2147855
<https://www.tandfonline.com/doi/full/10.1080/00131881.2022.2147855>
- Foley, G.M. (2017). Play as Regulation: Promoting Self-Regulation Through Play. *Topics in Language Disorders*, 37(3), 241-258. doi: 10.1097/TLD.0000000000000129
https://journals.lww.com/topicsinlanguagedisorders/Abstract/2017/07000/Play_as_Regulation_Promoting_Self_Regulation.5.aspx
- Fredricks, J.A., Filsecker, M. & Lawson, M.A. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction*, Vol.43, 1-4. doi.org/10.1016/j.learninstruc.2016.02.002
<https://www.sciencedirect.com/science/article/abs/pii/S0959475216300159?via%3Dihub>
- Frosch, C.A., Schoppe-Sullivan, S.J. & O'Banion, D. (2019). Parenting and Child Development: A Relational Health Perspective. *American Journal of Lifestyle Medicine*, 15(1): 45-59. doi:10.1177/1559827619849028
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7781063/>
- Fuertes, M., Sousa, O., Łockiewicz, M., Nunes, C. & Lino, D. (2018). How different are parents and educators? A comparative study of interactive differences between parents and educators in a collaborative adult-child activity, *PLoS One*, 13(11). doi:10.1371/journal.pone.0205991.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6241116/>
- Futterer, J.N., Bulotsky-Shearer, R.J. & Gruen, R.L. (2022). Emotional support moderates associations between preschool approaches to learning and academic skills. *Journal of Applied Developmental Psychology*, Vol. 80. doi.org/10.1016/j.appdev.2022.101413.
<https://www.sciencedirect.com/science/article/abs/pii/S0193397322000259>
- Gerhart, B. (2017). Incentives and Pay for Performance in the Workplace. In A.J. Elliot (Ed.), *Advances in Motivation Science*, Vol. 4, pp. 91-140. doi.org/10.1016/bs.adms.2017.02.001.
<https://www.sciencedirect.com/science/article/abs/pii/S2215091917300019>
- Gibbs, L., (2020). Leadership emergence and development: Organizations shaping leading in early childhood education. *Educational Management Administration & Leadership*, 50(4). doi:10.1177/1741143220940324
<https://journals.sagepub.com/doi/10.1177/1741143220940324>
- Gide, S., Wong, S., Press, F. & Davis, B. (2021). Cultural diversity in the Australian early childhood education workforce: What do we know, what don't we know and why is it important? *Australasian Journal of Early Childhood*, 47(1). doi.org/10.1177/18369391211057292
<https://journals.sagepub.com/doi/10.1177/18369391211057292>
- Gomez, R.E., Kagan, S.L. & Fox, E.A. (2015). Professional development of the early childhood education teaching workforce in the United States: an overview. *Professional Development in Education*, 41(2), 169-186. doi.org/10.1080/19415257.2014.986820
<https://www.tandfonline.com/doi/abs/10.1080/19415257.2014.986820>
- Gilkerson, J., Richards, J.A., Warren, S.F., Oller, D.K., Russo, R. & Vohr, B. (2018). Language Experience in the Second Year of Life and Language Outcomes in Late Childhood. *Pediatrics*, 142(4). doi:10.1542/peds.2017-4276.
<https://pubmed.ncbi.nlm.nih.gov/30201624/>
- Guiberson, M. & Ferris, K.P. (2019). Early Language Interventions for Young Dual Language Learners: A Scoping Review. *American Journal of Speech-Language Pathology*, 28(3):945-963. doi:10.1044/2019_AJSLP-IDLL-18-0251.
<https://pubmed.ncbi.nlm.nih.gov/31398304/>
- Hadley, F. & Rouse, E. (2018). The family-centre partnership disconnect: Creating reciprocity. *Contemporary Issues in Early Childhood*, 19(1). doi.org/10.1177/146394911876214
<https://journals.sagepub.com/doi/10.1177/1463949118762148>
- Hahn, R.A. & Barnett, W.S. (2023). Early Childhood Education: Health, Equity and Economics. *Annual Review of Public Health*, Vol. 44:75-92. doi.org/10.1146/annurev-publhealth-071321-032337
<https://www.annualreviews.org/content/journals/10.1146/annurev-publhealth-071321-032337>

- Hanno, E.C. & McCoy, D.C. (2021). Early Educators' Collective Workplace Stress as a Predictor of Professional Development's Impacts on Children's Development. *Child Development*, 92(3), 833-843. doi.org/10.1111/cdev.13566
<https://srcd.onlinelibrary.wiley.com/doi/epdf/10.1111/cdev.13566>
- Hansen, J.E., & Broekhuizen, M.L. (2021). Quality of the Language-Learning Environment and Vocabulary Development in Early Childhood. *Scandinavian Journal of Educational Research*, 65:2, 302-317. doi:10.1080/00313831.2019.1705894
<https://www.tandfonline.com/doi/full/10.1080/00313831.2019.1705894>
- Hart, B. & Risley, T.R. (2003) The Early Catastrophe: The 30 Million Word Gap. *The American Educator* 27:1 (4-9).
<https://api.semanticscholar.org/CorpusID:142714655>
- Haslip, M.J., Allen-Handy, A. & Donaldson, L. (2019). How do Children and Teachers Demonstrate Love, Kindness and Forgiveness? Findings from an Early Childhood Strength-Spotting Intervention. *Early Childhood Education Journal*, 47, 531–47. doi.org/10.1007/s10643-019-00951-7
<https://link.springer.com/article/10.1007/s10643-019-00951-7>
- Haslip, M.J. & Gullo, D.F. (2017). The Changing Landscape of Early Childhood Education: Implications for Policy and Practice. *Early Childhood Education Journal*, 46:249–264. doi.org/10.1007/s10643-017-0865-7
<https://link.springer.com/article/10.1007/s10643-017-0865-7>
- Hatfield, B.E., Burchinal, M.R., Pianta, R.C. & Sideris, J. (2016). Thresholds in the association between quality of teacher–child interactions and preschool children's school readiness skills. *Early Childhood Research Quarterly*, Vol. 36, 561-571. doi.org/10.1016/j.ecresq.2015.09.005.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200615300053>
- Heard, K. & Peltier, C. (2021). Using video analysis in the professional development of a classroom teacher. *Preventing School Failure: Alternative Education for Children and Youth*, 65(2): 163-174. doi.org/10.1080/1045988X.2020.1864714
<https://www.tandfonline.com/doi/full/10.1080/1045988X.2020.1864714>
- Heikka, J., Kahilala, S., Pitkaniemi, H. & Hujala, E. (2021). Teachers' Time for Planning, Assessment and Development Connected to Staff Well-Being in Early Childhood Education. In de la Rosa, O.M.A., Angulo L.M.V. & Giambrone, C. (Eds.), *Education in Childhood*. doi:10.5772/intechopen.99103
<https://www.intechopen.com/chapters/78009>
- Hernández, M.M., Eisenberg, N., Valiente, C., Spinrad, T.L., Johns, S.K., Berger, R.H., Silva, K.M., Diaz, A., Gal-Szabo, D.E., Thompson, M.S. & Southworth, J. (2018). Self-Regulation and Academic Measures Across the Early Elementary School Grades: Examining Longitudinal and Bidirectional Associations. *Early Education and Development*, 29:7, 914-938. doi:10.1080/10409289.2018.1496722
<https://www.tandfonline.com/doi/full/10.1080/10409289.2018.1496722>
- Hewett, B. S. & La Paro, K. M. (2019). Organizational Climate: Collegiality and Supervisor Support in Early Childhood Education Programs. *Early Childhood Education Journal*, 48(4), 415–427. doi:10.1007/s10643-019-01003-w
<https://link.springer.com/article/10.1007/s10643-019-01003-w>
- Hindman, A.H., Wasik, B.A. & Bradley, D.E. (2019). How Classroom Conversations Unfold: Exploring Teacher–Child Exchanges During Shared Book Reading. *Early Education and Development*, 30(4). doi.org/10.1080/10409289.2018.1556009
<https://www.tandfonline.com/doi/full/10.1080/10409289.2018.1556009>
- Holland, A.L. & Ohle, K.A. (2020). "How Can I Help You?": Reconsidering Behavior Management. *Young Children*, 75(2). NAEYC.
<https://www.naeyc.org/resources/pubs/yc/may2020/how-can-i-help-you>
- Hooper, A., Potts, C. & Walton, M. (2023). Novice early childhood teachers' perceptions of their professional development experiences: An interpretive phenomenological approach. *Journal of Early Childhood Teacher Education*, 44(3):310-329. doi.org/10.1080/10901027.2022.2043495
<https://www.tandfonline.com/doi/abs/10.1080/10901027.2022.2043495>
- Hornby, G. & Blackwell, I. (2018). Barriers to parental involvement in education: an update. *Educational Review*, 70(1):109-119. doi:10.1080/00131911.2018.1388612
https://www.researchgate.net/publication/322334532_Barriers_to_parental_involvement_in_education_an_update
- Housman, D.K. (2017). The importance of emotional competence and self-regulation from birth: a case for the evidence-based emotional cognitive social early learning approach. *International Journal of Child Care and Education Policy*, ICEP, 11,13. doi.org/10.1186/s40723-017-0038-6
<https://ijcccep.springeropen.com/articles/10.1186/s40723-017-0038-6>

- Hummel, T.G., Cohen, F. & Anders, Y. (2023). The role of partnership practices in strengthening parental trust. *Early Child Development and Care*, 193(3):401-416. doi:10.1080/03004430.2022.2093868
<https://www.tandfonline.com/doi/full/10.1080/03004430.2022.2093868>
- Hur, E.H., Ardeleanu, K., Satchell, T.W. & Jeon, L. (2023). Why are they leaving? Understanding Associations between early childhood program policies and teacher turnover rates. *Child Youth Care Forum* 52, 417-440. doi.org/10.1007/s10566-022-09693-x
<https://link.springer.com/article/10.1007/s10566-022-09693-x#citeas>
- Huss-Keeler, R.L. (2019). Going back to school: The perceived value of the bachelor's degree for early childhood practitioners. *Journal of Early Childhood Teacher Education* 41(4), 359-383. doi.org/10.1080/10901027.2019.1704949
<https://www.tandfonline.com/doi/full/10.1080/10901027.2019.1704949>
- Iheoma, U., Iruka, N. & Cabrera, M.P. (2022). Supporting and engaging with diverse families during the early years: emerging approaches that matter for children and families. *Early Childhood Research Quarterly*, Vol. 60:390-393. doi.org/10.1016/j.ecresq.2022.04.001
<https://www.sciencedirect.com/science/article/abs/pii/S0885200622000321>
- Impact of the Covid-19 Pandemic on Early Childhood Care and Education. (2020). *Early Childhood Education Journal*, 48(5): 533-536. doi:10.1007/s10643-020-01082-0
<https://link.springer.com/article/10.1007/s10643-020-01082-0>
- Institute of Medicine (IOM) and National Research Council (NRC) of the National Academies (2015). Transforming the workforce for children birth through age eight: A unifying foundation. National Academies Press.
https://nap.nationalacademies.org/resource/19401/BirthtoEight_brief.pdf
- Isquith-Dicker, L.N., Kwist, A., Black, D., Hawes, S.E., Slyker, J., Bergquist, S. & Martin-Herz, S.P. (2021). Early Child Development Assessments and Their Associations with Long-Term Academic and Economic Outcomes: A Systematic Review. *International Journal of Environmental Research and Public Health*, 18(4):1538. doi:10.3390/ijerph18041538.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7915620/>
- Jackson, Jen. (2023). Developing early childhood educators with diverse qualifications: the need for differentiated approaches. *Professional Development in Education*, 49(5):812-826. doi.org/10.1080/19415257.2021.1876151
<https://www.tandfonline.com/doi/full/10.1080/19415257.2021.1876151>
- Jenkins, J.M., Duncan, G.J., Auger, A., Bitler, M., Domina, T. & Burhcin, M. (2018). Boosting school readiness: Should preschool teachers target skills or the whole child? *Economics of Education Review*, Vol. 65:107-125. doi.org/10.1016/j.econedurev.2018.05.001.
<https://www.sciencedirect.com/science/article/abs/pii/S0272775717302509?via%3Dihub>
- Jennings, P. A., Jeon, L., & Roberts, A. M. (2020). Introduction to the Special Issue on Early Care and Education Professionals' Social and Emotional Well-being. *Early Education and Development*, 31(7), 933-939. doi.org/10.1080/10409289.2020.1809895
<https://www.tandfonline.com/doi/full/10.1080/10409289.2020.1809895>
- Jeon, L., Ardeleanu, K. & Zhao, X. (2022). Preschool teachers' mindfulness and children's social, emotional and behavioral functioning. *Mindfulness*, Vol. 13, 2059-2068. doi.org/10.1007/s12671-022-01941-4
<https://link.springer.com/article/10.1007/s12671-022-01941-4>
- Kelly, N.E. & Wakabayashi, T. (2020). Family Engagement in Schools: Parent, Educator, and Community Perspectives. *Sage Open*. doi.org/10.1177/2158244020973024
<https://journals.sagepub.com/doi/10.1177/2158244020973024>
- Kelty, N.E. (2022). Self-Regulation in Preschool: Examining Its Factor Structure and Associations with Pre-academic Skills and Social-Emotional Competence. *Frontiers in Psychology*, Vol. 12. doi:10.3389/fpsyg.2021.717317
<https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2021.717317/full>
- Kessel, J. (2018). Let Our Children Play: The Importance of Play in Early Childhood Education. *Journal of Early Childhood Scholarship and Innovative Practice*, 2(1).
<https://scholarworks.umd.edu/cgi/viewcontent.cgi?article=1012&context=ecsip>
- Kim, S. (2022). Fifty years of parental involvement and achievement research: A second-order meta-analysis. *Educational Research Review*, V:37. doi.org/10.1016/j.edurev.2022.100463.
<https://www.sciencedirect.com/science/article/pii/S1747938X2200032X>
- King, E.K., Pierro, R.C., Li, J., Porterfield, M.L. & Rucker, L. (2016). Classroom quality in infant and toddler classrooms: impact of age and programme type. *Early Child Development and Care*, 186(11):1821-1835. doi.org/10.1080/03004430.2015.1134521
<https://www.tandfonline.com/doi/full/10.1080/03004430.2015.1134521>

- Kinthead-Clark, Z. (2017). What does it take to be successful in the classroom? The views of 'experienced' Caribbean early childhood teachers, *Early Child Development and Care*. doi:10.1080/03004430.2017.1336167
<https://www.tandfonline.com/doi/full/10.1080/03004430.2017.1336167>
- Klinger, J., Mayor, J. & Bannard, Colin. (2016). Children's Faithfulness in Imitating Language Use Varies Cross-Culturally, Contingent on Prior Experience. *Child Development*, 87(3):820-833. doi.org/10.1111/cdev.12503
<https://srcd.onlinelibrary.wiley.com/doi/10.1111/cdev.12503>
- Kong C. & Yasmin F. (2022). Impact of Parenting Style on Early Childhood Learning: Mediating Role of Parental Self-Efficacy. *Frontiers in Psychology*, Vol. 13. doi:10.3389/fpsyg.2022.928629.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9302433/>
- Korucu, I., Ayturk, E., Finders, J.K., Schnur, G., Bailey, C.S., Tominey, S.L. & Schmitt, S.A. (2022). Self-Regulation in Preschool: Examining its factor structure and associations with pre-academic skills and social-emotional competence. *Frontiers in Psychology*, V:12. doi:10.3389/fpsyg.2021.717317
<https://pubmed.ncbi.nlm.nih.gov/35115979/>
- Kristiansen, E., Rydjord Tholin, K. & Bøe, M. (2021). Early childhood centre directors coping with stress: firefighters and oracles, *International Journal of Educational Management*, 35(4):909-921. doi.org/10.1108/IJEM-12-2020-0584
<https://www.emerald.com/insight/content/doi/10.1108/IJEM-12-2020-0584/full/html>
- Lang, S.N., Shinyoung, J. & Tebben, E. (2024). Relationships Between Families and Head Start Staff: Associations with Children's Academic Outcomes Through Home Involvement and Approaches to Learning. *Early Education and Development*, 35(3):413-430. doi:10.1080/10409289.2022.2155772
<https://www.tandfonline.com/doi/full/10.1080/10409289.2022.2155772>
- Lang, S.N., Tolbert, A.R., Schoppe-Sullivan, S.J. & Bonomi, A.E. (2016). A co-caring framework for infants and toddlers: Applying a model of coparenting to parent-teacher relationships. *Early Childhood Research Quarterly*, Vol. 34:40-52. doi.org/10.1016/j.ecresq.2015.08.004.
<https://www.sciencedirect.com/science/article/pii/S0885200615000666>
- Langeloo, A., Mascareño Lara, M., Duenk, M.I., Klitzing, N.F. & Srijbos, J-W. (2019). A Systematic Review of Teacher-Child Interactions With Multilingual Young Children. *Review of Educational Research*, 89(4). doi.org/10.3102/0034654319855619
<https://journals.sagepub.com/doi/10.3102/0034654319855619>
- Larson, A.L., Cycyk, L.M., Carta, J.J., Scheffner Hammer, C., Baralt, M., Uchikoshi, Y., An, Z.G. & Wood, C. (2020). A systematic review of language-focused interventions for young children from culturally and linguistically diverse backgrounds. *Early Childhood Research Quarterly*, Vol. 50, Part 1:157-178. doi.org/10.1016/j.ecresq.2019.06.001.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200619300845>
- Lawrence, S., Smith, S., & Banerjee, R. (2016). *Preschool Inclusion: Key findings from research and implications for Policy*. National Center for Children in Poverty.
Retrieved from <https://www.nccp.org/publication/preschool-inclusion/>
- Lehrl, S., Evangelou, M. & Sammons, P. (2020). The home learning environment and its role in shaping children's educational development. *School Effectiveness and School Improvement*, 31(1):1-6, doi:10.1080/09243453.2020.1693487
<https://www.tandfonline.com/doi/full/10.1080/09243453.2020.1693487>
- Lei, H., Cui, Y. & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality: An International Journal*, 46(3), 517-528. doi:10.2224/sbp.7054
<https://www.ingentaconnect.com/content/sbp/sbp/2018/00000046/00000003/art00014?jsessionid=93305oh061jt9.x-ic-live-02>
- Lin, Y-C. & Magnuson, K.A. (2017). Classroom quality and children's academic skills in child care centers: Understanding the role of teacher qualifications. *Early Childhood Research Quarterly*, Vol. 42,1st Q, 215-227. doi.org/10.1016/j.ecresq.2017.10.003
<https://www.sciencedirect.com/science/article/abs/pii/S0885200617302491?via%3Dihub>
- Linder, S.M., Rembert, K., Simpson, A. & Ramey, M.D. (2016). A mixed-methods investigation of early childhood professional development for providers and recipients in the United States. *Professional Development in Education*, 42(1):123-149, doi:10.1080/19415257.2014.978483
<https://www.tandfonline.com/doi/full/10.1080/19415257.2014.978483>
- Liu, Y. & Leighton, J.P. (2021). Parental Self-Efficacy in Helping Children Succeed in School Favors Math Achievement. *Frontiers in Education*, Vol. 6. doi.org/10.3389/feduc.2021.657722
<https://www.frontiersin.org/articles/10.3389/feduc.2021.657722/full>

- Liu, Q. & Gao, M. (2022). Obstacles to parental involvement in children's education: New teachers' perceptions and strategies. *International Journal for Innovation Education and Research*, 10(2):139-148. doi:10.31686/ijer.vol10.iss2.3659
https://www.researchgate.net/publication/358900117_Obstacles_to_parental_involvement_in_children's_education_New_teachers'_perceptions_and_strategies
- Logan, J.A.R., Piasta, S.B., Purtell, K.M., Nichols, R. & Schachter, R.E. (2023). Early childhood language gains, kindergarten readiness, and Grade 3 reading achievement. *Child Development*, 95(2):609-624. doi.org/10.1111/cdev.14019
<https://srcd.onlinelibrary.wiley.com/doi/10.1111/cdev.14019>
- Lohmann, M.J., Hovey, K.A. & Gauvreau, A.N. (2018). Using a Universal Design for Learning Framework to Enhance Engagement in the Early Childhood Classroom. *The Journal of Special Education Apprenticeship*, 7(2). doi.org/10.58729/2167-3454.1072
<https://scholarworks.lib.csusb.edu/cgi/viewcontent.cgi?article=1072&context=josea>
- Lott, M., Callahan, E., Welker, D.E., Story, M. & Daniels, S. (2019). Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations, Consensus Statement. *Healthy Eating Research*.
<https://healthyeatingresearch.org/wp-content/uploads/2019/09/HER-HealthyBeverage-ConsensusStatement.pdf>
- Lux, C., Noble, C. & Bird, N.R. (2022). Montana's Early Childhood Educators: Recruiting and Retaining an Essential Workforce. *Early Childhood Education Journal*, 51:583–592. doi.org/10.1007/s10643-022-01308-3
<https://link.springer.com/article/10.1007/s10643-022-01308-3>
- McClelland, M.M., Gonzales, C.R., Cameron, C.E., Geldhof, G.J., Bowles, R.P., Nancarrow, A.F., Mercurief, A. & Alexis, T. (2021). The Head-Toes-Knees-Shoulders Revised: Links to Academic Outcomes and Measures of EF in Young Children. *Frontiers in Psychology*, Vol. 12. doi.org/10.3389/fpsyg.2021.721846
<https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2021.721846>
- McCormick, K.I., McMullen, M.B. & Lee, M.S.C. (2021). Early Childhood Professional Well-being as a Predictor of the Risk of Turnover in Early Head Start & Head Start Settings. *Early Education and Development*, Vol. 33. doi:10.1080/10409289.2021.1909915
<https://www.tandfonline.com/doi/full/10.1080/10409289.2021.1909915>
- McDonald, P, Thorpe, K. & Irvine, S. (2018). Low pay but still we stay: Retention in early childhood education and care. *Journal of Industrial Relations*, 60(5). doi.org/10.1177/0022185618800351
<https://journals.sagepub.com/doi/10.1177/0022185618800351>
- McGuire, S. (2011). Institute of Medicine (IOM) Early Childhood Obesity Prevention Policies. *The Advances in Nutrition* 2012, 3(1):56-7. doi:10.3945/an.111.001347
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3262615/>
- McLean, K., Lake, G., Wild, M., Licandro, U. & Evangelou, M. (2023). Perspectives of Play and Play-Based Learning: What Do Adults Think Play Is? *Australasian Journal of Early Childhood*, 48(1):5-17. doi.org/10.1177/18369391221130790
<https://journals.sagepub.com/doi/10.1177/18369391221130790>
- McLeod, R.H. (2019). Supporting Preservice Teachers to Implement Systematic Instruction Through Video Review, Reflection, and Performance Feedback. *Early Childhood Education Journal*, Vol. 48. doi.org/10.1007/s10643-019-01001-y
<https://link.springer.com/article/10.1007/s10643-019-01001-y>
- McMullen, M.B., Lee, M.S.C., McCormick, K.I. & Cho, J. (2020). Early Childhood Professional Well-Being as a Predictor of the Risk of Turnover in Child Care: A Matter of Quality. *Journal of Research in Childhood Education*, 34(3). doi.org/10.1080/02568543.2019.1705446
<https://www.tandfonline.com/doi/full/10.1080/02568543.2019.1705446>
- Mägi, K., Männamaa, M. & Kikas, E. (2016). Profiles of self-regulation in elementary grades: Relations to math and reading skills. *Learning and Individual Differences*, Vol. 51:37-48. doi.org/10.1016/j.lindif.2016.08.028.
<https://www.sciencedirect.com/science/article/abs/pii/S1041608016301728?via%3Dihub>
- Manning, M., Garvis, S., Fleming, C. & Wong, G.T.W. (2017). The relationship between teacher qualification and the quality of the early childhood education and care environment. *Campbell Systematic Reviews*. doi.org/10.4073/csr.2017.1
<https://onlinelibrary.wiley.com/doi/10.4073/csr.2017.1>
- Marcus, C., Danielsson, P. & Hagman, E. (2022). Pediatric obesity-Long-term consequences and effect of weight loss. *Journal of Internal Medicine*, 292(6):870-891. doi:10.1111/joim.13547
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9805112/>
- Marti, M., Merz, E.C., Repka, K.R., Landers, C., Noble, K.G. & Duch, H. (2018). Parent Involvement in the Getting Ready for School Intervention Is Associated with Changes in School Readiness Skills. *Frontiers in Psychology*, Vol. 9, 759. doi.org/10.3389/fpsyg.2018.00759
<https://psycnet.apa.org/record/2018-27787-001>

- Mihai, A. & Classen, A. (2023). A Framework for Scaffolding Language Development Through Meaningful Interactions. *Young Exceptional Children*, 26(4).
doi.org/10.1177/10962506221149701
<https://journals.sagepub.com/doi/10.1177/10962506221149701>
- Mohan, M., Celshiva, R., Karuppali, S., Bhat, J.S. & Anil, M.A. (2022). Pretend play in pre-schoolers: Need for structured and free play in pre-schools. *South African Journal of Childhood Education*, 12(1), a1092. doi.org/10.4102/sajce.v12i1.1092
<https://sajce.co.za/index.php/sajce/article/view/1092>
- Moran, K.K. & Sheppard, M.E. (2022). Finding the On Ramp: Accessing Early Intervention and Early Childhood Special Education in an Urban Setting. *Journal of Early Intervention*, 45(4). doi.org/10.1177/10538151221137801
<https://journals.sagepub.com/doi/10.1177/10538151221137801>
- Moshel, S., & Berkovich, I. (2021). Supervisors as definers of a new middle-level managers' leadership model: Typology of four middle-level leadership prototypes in early childhood education. *Leadership and Policy in Schools*, 22(3):1-17. doi:10.1080/15700763.2021.1950774
https://www.researchgate.net/publication/353392428_Supervisors_as_definers_of_a_new_middle-level_managers%27_leadership_model_Typology_of_four_middle-level_leadership_prototypes_in_early_childhood_education
- Muppalla, S.K., Vuppapapati, S., Pulliahgaru, A.R., and Sreenivasulu, H. (2023). Effects of Excessive Screen Time on Child Development: An Updated Review and Strategies for Management. *Cureus*, 15(6). doi:10.7759/cureus.40608
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10353947/>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10353947/>
- Murphy, C., Matthews, J., Clayton, O. & Cann, W. (2021). Partnership with families in early childhood education: Exploratory study. *Australasian Journal of Early Childhood* 46(1). doi.org/10.1177/18369391209790
<https://journals.sagepub.com/doi/full/10.1177/1836939120979067>
- Murray, E., McFarland-Piazza, L., & Harrison, L. J. (2015). Changing patterns of parent-teacher communication and parent involvement from preschool to school. *Early Child Development and Care*, 185(7), 1031–1052. doi.org/10.1080/03004430.2014.975223
<https://www.tandfonline.com/doi/full/10.1080/03004430.2014.975223>
- Mutoharoh, Hufad, A. & Rusdiyani, I. (2023). The Correlation between Innovative Leadership and Early Childhood Education Teacher Performance. *Journal of Education and Social Research*, 13(3). doi.org/10.36941/jesr-2023-0065
<https://www.richtmann.org/journal/index.php/jesr/article/view/13342>
- Muir, R.A., Howard, S.J. & Kervin, L. (2023). Interventions and Approaches Targeting Early Self-Regulation or Executive Functioning in Preschools: A Systematic Review. *Educational Psychology Review*, 35(27). doi.org/10.1007/s10648-023-09740-6
<https://link.springer.com/article/10.1007/s10648-023-09740-6>
- National Association for the Education of Young Children (NAEYC) (2019). *Intentional and Supportive: Appropriate Uses of Early Assessments*. *Young Children*, 74(3). Retrieved from
<https://www.naeyc.org/our-work/public-policy-advocacy/head-start>
- National Association for the Education of Young Children (NAEYC) (2019). NAEYC Early Learning Program Accreditation Standards and Assessment Items. Retrieved from https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/accreditation/early-learning/standards_assessment_2019.pdf
- National Association for the Education of Young Children (NAEYC) (n.d.). *Build Your Public Policy Knowledge: Head Start*. Retrieved from <https://www.naeyc.org/our-work/public-policy-advocacy/head-start>.
- National Association for the Education of Young Children (NAEYC) (n.d.). *Developmentally Appropriate Practice (DAP) Position Statement*. Retrieved from <https://www.naeyc.org/resources/position-statements/dap/contents>
- National Association for the Education of Young Children (NAEYC) (n.d.). *Staff to Child Ratio and Class Size*. Retrieved from https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/accreditation/early-learning/staff_child_ratio_0.pdf
- National Center for Education Statistics. (2023). Enrollment Rates of Young Children. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. Retrieved from <https://nces.ed.gov/programs/coe/indicator/cfa>.
- National Center for Education Statistics. (2023). English Learners in Public Schools. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. Retrieved from <https://nces.ed.gov/programs/coe/indicator/cgf>.
- National Center for Education Statistics. (2019). Status and Trends in the Education of Racial and Ethnic Groups: Early Childcare and Education Arrangements. Retrieved from https://nces.ed.gov/programs/raceindicators/indicator_RBA.asp

National Center for Education Statistics. (2021). Fast Facts: Child Care. Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=4>

National Center for Health Statistics, Centers for Disease Control and Prevention. (2021). National Health and Nutrition Examination Study. Retrieved from <https://wwwn.cdc.gov/nchs/nhanes/continuousnhanes/overview.aspx?BeginYear=2019>

National Center on Early Childhood Quality Assurance, Administration for Children and Families, U.S. Department of Health and Human Services. (2022). Inclusion of Young Children with Disabilities: A Critical Quality Indicator for Early Childhood Education. Retrieved from https://childcareta.acf.hhs.gov/sites/default/files/new-occ/resource/files/22_09_09_inclusion_of_young_children_with_disabilities_brief_final_508_compliant_1.pdf

National Institute for Early Education Research. (n.d.). Benchmarks for High-Quality Pre-K. Retrieved from <https://nieer.org/sites/default/files/2023-08/benchmarks-check-list-png-410x1024.png>

National Institute of Child Health and Development, U.S. Department of Health and Human Services. (2006). The NICHD Study of Early Child Care and Youth Development: Findings for Children up to Age 4½ Years. Retrieved from https://www.nichd.nih.gov/sites/default/files/publications/pubs/documents/seccyd_06.pdf

Nekitsing, C., Hetherington, M.M. & Blundell-Birtill, P. (2018). Developing Healthy Food Preferences in Preschool Children Through Taste Exposure, Sensory Learning, and Nutrition Education. *Current Obesity Reports*. doi:10.1007/s13679-018-0297-8
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5829121/>

Nesbitt, K.T. & Farran, D.C. (2021). Effects of prekindergarten curricula: Tools of the Mind as a case study. *Monographs of the Society for Research in Child Development*, 86(1):7-119. doi.org/10.1111/mono.12425
<https://srcd.onlinelibrary.wiley.com/doi/10.1111/mono.12425>

Nganga, L., Akpovo, S.M. & Kambutu, J. (2020). Culturally Inclusive and Contextually Appropriate Instructional Practices: Rethinking Pedagogical Perspectives, Practices, Policies, and Experiences in Early Childhood Education Programs. *Journal of Research in Childhood Education*, 34(1):2-5. doi:10.1080/02568543.2019.1697153
<https://www.tandfonline.com/doi/full/10.1080/02568543.2019.1697153>

Nguyen, T., Atkins-Burnett, S., Monahan, S., Tarullo, L., Xue, Y. & Cannon, J. (2023). Supporting Responsive Caregiving for the Youngest Children: Psychometric Evidence of the Quality of Care for Infants and Toddlers (QCIT) Observational Measure, *Early Education & Development*, 34(7):1682-1703. doi.org/10.1080/10409289.2022.2144685
<https://www.tandfonline.com/doi/full/10.1080/10409289.2022.2144685>

Nguyen, T., Jenkins, J.M. & Auger Whitaker, A. (2018). Are Content-Specific Curricula Differentially Effective in Head Start or State Prekindergarten Classrooms? *American Educational Research Association AERA Open*, doi.org/10.1177/2332858418784283
<https://journals.sagepub.com/doi/10.1177/2332858418784283#bibr20-2332858418784283>

Nilsen, T.R. (2021). Pedagogical intentions or practical considerations when facilitating children's play? Teachers' beliefs about the availability of play materials in the indoor ECEC environment. *International Journal of Child Care and Education Policy*, 15(1). doi.org/10.1186/s40723-020-00078-y
<https://ijceps.springeropen.com/articles/10.1186/s40723-020-00078-y>

Nitecki, E. (2015). Integrated school–family partnerships in preschool: Building quality involvement through multidimensional relationships. *The School Community Journal*, 25(2):195–219.
<https://psycnet.apa.org/record/2016-00631-010>

Norheim, H. & Moser, T. (2020). Barriers and facilitators for partnerships between parents with immigrant backgrounds and professionals in ECEC: A review based on empirical research, *European Early Childhood Education Research Journal*, 28(6):789-805. doi:10.1080/1350293X.2020.1836582
<https://www.tandfonline.com/doi/full/10.1080/1350293X.2020.1836582>

Obee, A.F., Hart, K.C. & Fabiano, G.A. (2022). Professional Development Targeting Classroom Management and Behavioral Support Skills in Early Childhood Settings: A Systematic Review. *School Mental Health*. doi: 10.1007/s12310-022-09562-x
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9771779/>

Obiweluozo, E.P. & Melefa, O.M. (2014). Strategies for Enhancing Language Development as a Necessary Foundation for Early Childhood Education. *Journal of Education and Practice*, 5(5).
https://www.researchgate.net/publication/316058102_Strategies_for_Enhancing_Language_Development_as_a_Necessary_Foundation_for_Early_Childhood_Education

- Odom, S.L., Butera, G., Diamond, K.E., Hanson, M.J., Horn, E., Lieber, J., Palmer, S., Fleming, K. & Marquis, J. (2019). Efficacy of a Comprehensive Early Childhood Curriculum to Enhance Children's Success. *Topics in Early Childhood Special Education*, 39(1). doi.org/10.1177/0271121419827654
<https://journals.sagepub.com/doi/full/10.1177/0271121419827654>
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (2023). Head Start Program Facts: Fiscal Year 2022.
Retrieved from <https://eclkc.ohs.acf.hhs.gov/data-ongoing-monitoring/article/head-start-program-facts-fiscal-year-2022>
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (n.d.). Head Start Policy and Regulations, Staff Qualifications and Development.
Retrieved from <https://eclkc.ohs.acf.hhs.gov/policy/head-start-act/sec-648a-staff-qualifications-development>
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (n.d.). Head Start Policy and Regulations, Staff Qualifications and Competency Requirements.
Retrieved from <https://eclkc.ohs.acf.hhs.gov/policy/45-cfr-chap-xiii/1302-91-staff-qualifications-competency-requirements>
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (2024). Understanding and Eliminating Expulsion in Early Childhood Programs.
Retrieved from <https://eclkc.ohs.acf.hhs.gov/publicacion/understanding-eliminating-expulsion-early-childhood-programs>
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (2024). Engaging and Goal Setting with Families.
Retrieved from <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/engaging-and-goal-setting-with-families.pdf>
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (2024). The Family Partnership Process: Engaging and Goal-Setting with Families.
Retrieved from <https://eclkc.ohs.acf.hhs.gov/publication/family-partnership-process-engaging-goal-setting-families>
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (2024). Early Head Start Facts and Figures.
Retrieved from https://nhsa.org/wp-content/uploads/2021/12/EarlyHeadStartFactsFigures_2023.pdf
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (2024). Early Learning Outcomes.
Retrieved from <https://eclkc.ohs.acf.hhs.gov/interactive-head-start-early-learning-outcomes-framework-ages-birth-five>
- Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services (2024). Designing Classrooms and Socialization Environments for Infants and Toddlers.
Retrieved from <https://eclkc.ohs.acf.hhs.gov/learning-environments/article/designing-classroom-socialization-environments-infants-toddlers>
- Oke, A., Butler, J.E. & O'Neill, C. (2021). Identifying Barriers and Solutions to Increase Parent-Practitioner Communication in Early Childhood Care and Educational Services: The Development of an Online Communication Application. *Early Childhood Education Journal*, Vol.49: 283–293. doi.org/10.1007/s10643-020-01068-y
<https://link.springer.com/article/10.1007/s10643-020-01068-y>
- Ondieki Bosire, J.P., Cranley Gallagher, K., Garrett, A.L. & Babchuk, W. (2023). Early childhood leadership well-being: A phenomenological examination of workplace stress and supports. *Journal of Early Childhood Research*, 21(4). doi.org/10.1177/1476718X231164131
<https://journals.sagepub.com/doi/10.1177/1476718X231164131>
- O'Reilly, C., Devitt, A. & Hayes, N. (2022). Critical thinking in the preschool classroom - A systematic literature review. *Thinking Skills and Creativity*, Vol. 46. doi.org/10.1016/j.tsc.2022.101110
<https://www.sciencedirect.com/science/article/pii/S1871187122001134>
- Panadero, P. (2017). A Review of Self-regulated Learning: Six Models and Four Directions for Research. *Frontiers in Psychology*, 8:422. doi:10.3389/fpsyg.2017.00422
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5408091/>
- Passmore, A.H. & Zarate, Ky. (2020). Helping Families Reach Their PEAK: Partnerships That Promote Family Empowerment. *Teaching Exceptional Children*, 53(4):310-318. doi.org/10.1177/0040059920958737
<https://journals.sagepub.com/doi/10.1177/0040059920958737>
- Perlman, M., Howe, N., Culyas, C. & Falenchuk, O. (2019). Associations between Directors' Characteristics, Supervision Practices and Quality of Early Childhood Education and Care Classrooms. *Early Education and Development*, 28(8):956-975. doi:10.1080/10409289.2017.1319783
<https://www.tandfonline.com/doi/full/10.1080/10409289.2017.1319783>

- Perlman, M., Falenchuk, O., Fletcher, B., McMullen, E., Beyene, J., & Shah, P. S. (2016). A Systematic Review and Meta-Analysis of a Measure of Staff/Child Interaction Quality (the Classroom Assessment Scoring System) in Early Childhood Education and Care Settings and Child Outcomes. *PLoS One*, 11(12). doi:10.1371/journal.pone.0167660
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5201239/>
- Perlman, M., Fletcher, B., Falenchuk, O., Brunsek, A., McMullen, E. & Shah, P.S. (2017) Child-Staff Ratios in Early Childhood Education and Care Settings and Child Outcomes: A Systematic Review and Meta-Analysis. *PLoS One*, 12(1). doi.org/10.1371/journal.pone.0170256
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0170256>
- Phillips, D.A., Hutchison, J., Martin, A., Castle, S. & Johnson, A.D. (2022). First do no harm: How teachers support or undermine children's self-regulation. *Early Childhood Research Quarterly*, Vol 59:172-185. doi.org/10.1016/j.ecresq.2021.12.001.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200621001459>
- Philipsen Hetzner, N., & Madigan, A. (2021). *Understanding Leadership in Early Care and Education: A Literature Review*. Office of Planning Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
<https://www.acf.hhs.gov/sites/default/files/documents/opre/understanding-leadership-ECE-march-2021.pdf>
- Phuong, D.T.K. (2022). The impact of imitation on language acquisition: A critical review. *Journal of Science*. doi:10.46223/HCMCOUJS. soci.en.12.2.2359.2022
<https://journalofscience.ou.edu.vn/index.php/soci-en/article/view/2359>
- Pianta, R., Hamre, B., Downer, J., Burchinal, M., Williford, A., LoCasale-Crouch, J., Howes, C., La Paro, K. & Scott-Little, C. (2017). Coaching and Coursework Effects on Indicators of Children's School Readiness. *Early Education and Development*, 28(8). doi.org/10.1080/10409289.2017.1319783
<https://www.tandfonline.com/doi/full/10.1080/10409289.2017.1319783>
- Pianta, R.C., DeCoster, J., Cabell, S., Burchinal, M., Hamre, B.K., Downer, J., LoCasale-Crouch, J., Williford, A. & Howes, C. (2014). Dose-response relations between preschool teachers' exposure to components of professional development and increases in quality of their interactions with children. *Early Childhood Research Quarterly*, 29(4):499-508. doi.org/10.1016/j.ecresq.2014.06.001.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200614000647?via%3Dihub>
- Petrovic, Z., Clayton, O., Matthews, J., Wade, C., Tan, L., Meyer, D., Gates, A., Almendingen, A & Cann, W. (2019). Building the skills and confidence of early childhood educators to work with parents: study protocol for the Partnering with Parents cluster randomised controlled trial. *BMC Medical Research Methodology*, 19(197). doi:10.1186/s12874-019-0846-1.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6814117/>
- Premo, E., Pilarz, A.R. & Lin, Y-C. (2023). Pre-kindergarten teachers' family engagement practices and English Language Learners' attendance and early learning skills: Exploring the role of the linguistic context. *Early Childhood Research Quarterly*, Vol. 63. doi. org/10.1016/j.ecresq.2022.10.005.
<https://www.sciencedirect.com/science/article/abs/pii/S0885200622001119>
- Prime, H., Andrews, K., Markwell, A., Gonzalez, A., Tricco, J.M., Bennett, T. & Atkinson, L (2023). Positive Parenting and Early Childhood Cognition: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Clinical Child and Family Psychology Review*, 26(2):362-400. doi:10.1007/s10567-022-00423-2.
<https://ncbi.nlm.nih.gov/pmc/articles/PMC10123053/>
- Puinean, G., Gokiart, R., Taylor, M., Jun, S. & De Vos, P. (2022). Evaluation in the field of early childhood development: A scoping review. *Evaluation Journal of Australasia*, 22(2), 63-89. doi.org/10.1177/1035719X221080
<https://journals.sagepub.com/doi/full/10.1177/1035719X221080575#tab-contributors>
- Pursi, A. & Lipponen, L. (2018). Constituting play connection with very young children: Adults' active participation in play. *Learning, Culture and Social Interaction*, Vol.17:21-37. doi.org/10.1016/j.lcsi.2017.12.001.
<https://www.sciencedirect.com/science/article/abs/pii/S221065611730123X?via%3Dihub>
- Pyle, A., Danniels, E., Larsen, N.E. & Martinussen, R. (2022). Supporting children's self-regulation development in play-based kindergarten classrooms. *International Journal of Educational Research*, Vol. 116. doi.org/10.1016/j.ijer.2022.102059
<https://www.sciencedirect.com/science/article/abs/pii/S0883035522001343?via%3Dihub>
- Rad, D., Redes, A., Roman, A., Ignat, S., Lile, R., Demeter, E., Egerău, A., Dughi, T., Balas, E., Maier, R., Kiss, C., Torkos, H. & Rad, G. (2022). Pathways to inclusive and equitable quality early childhood education for achieving SDG4 goal—a scoping review. *Frontiers in Psychology*, Vol. 13. doi.org/10.3389/fpsyg.2022.955833
<https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2022.955833/full>
- Recchia, S.L. & Puig, V.I. (2018). Early Childhood Teachers Finding Voice among Peers: A Reflection on Practice. *The New Educator*. doi:10.1080/1547688X.2018.1433344
<https://www.tandfonline.com/doi/full/10.1080/1547688X.2018.1433344>

- Ritoša, A., Åström, F., Björck, E., Borglund, L., Karlsson, E., McHugh, E. & Nylander, E. (2023) Measuring Children's Engagement in Early Childhood Education and Care Settings: A Scoping Literature Review. *Educational Psychology Review*, 35(99). doi.org/10.1007/s10648-023-09815-4
<https://link.springer.com/article/10.1007/s10648-023-09815-4>
- Roberts, A. M., Daro, A. M., & Gallagher, K. C. (2023). Profiles of Well-Being Among Early Childhood Educators. *Early Education and Development*, 34(6), 1414–1428. doi.org/10.1080/10409289.2023.2173463
<https://www.tandfonline.com/doi/full/10.1080/10409289.2023.2173463>
- Rogers, K., Maxwell, D. & Robinson, S.R. (2018). Influences of academic success among low-income, minority students: A qualitative interpretive meta-synthesis of student, educator, and parent experiences. *Meta-Synthesis*.
https://www.researchgate.net/publication/349900229_Influences_of_academic_success_among_low-income_minority_students_A_qualitative_interpretive_meta-synthesis_of_student_educator_and_parent_experiences
- Roos, L.L., Wall-Wieler, E. & Boram Lee, J. (2019). Poverty and Early Childhood Outcomes *Pediatrics*, 143(6). doi.org/10.1542/peds.2018-3426
<https://publications.aap.org/pediatrics/article/143/6/e20183426/76812/Poverty-and-Early-Childhood-Outcomes?autologincheck=redirected>
- Rudasill, K.M., Acar, I. & Xu, Y. (2022). Early Teacher-Child Relationships Promote Self-Regulation Development in Prekindergarten. *International Journal of Environmental Research and Public Health*, 19(14):8802. doi:10.3390/ijerph19148802.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9318211/>
- Sabol, T.J., Sommer, T.E., Sanchez, A. & Kinghorn Busby, A. (2018). A New Approach to Defining and Measuring Family Engagement in Early Childhood Education Programs. *American Educational Research Association*. doi.org/10.1177/2332858418785904
<https://journals.sagepub.com/doi/full/10.1177/2332858418785904>
- Sando, O.J. (2019). The physical indoor environment in ECEC settings: children's well-being and physical activity, *European Early Childhood Education Research Journal*, 27(4):506-519. doi:10.1080/1350293X.2019.1634238
<https://www.tandfonline.com/doi/full/10.1080/1350293X.2019.1634238>
- Sandseter, E. B. H., Storli, R., & Sando, O. J. (2022). The relationship between indoor environments and children's play – confined spaces and materials. *Education*, 50(5):551–563. doi.org/10.1080/03004279.2020.1869798
<https://www.tandfonline.com/doi/full/10.1080/03004279.2020.1869798>
- Sanyaolu, A., Okorie, C., Qi, X., Locke, J. & Rehman, S. (2019). Childhood and Adolescent Obesity in the United States: A Public Health Concern. *Global Pediatric Health*. doi:10.1177/2333794X19891305.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6887808/#:~:text=Overall%2C%20the%20prevalence%20of%20obesity%20among%20adolescents%202812-19,higher%20prevalence%20of%20obesity%20than%20preschool-aged%20boys%202814.3%25%29.>
- Saracho, O.N. (2021). Theories of Child Development and Their Impact on Early Childhood Education and Care. *Early Childhood Education Journal*, 51(8). doi:10.1007/s10643-021-01271-5.
https://www.researchgate.net/publication/355755862_Theories_of_Child_Development_and_Their_Impact_on_Early_Childhood_Education_and_Care
- Savina, E. (2020). Self-regulation in Preschool and Early Elementary Classrooms: Why It Is Important and How to Promote It. *Early Childhood Education Journal*, Vol. 49:493-501. doi.org/10.1007/s10643-020-01094-w
<https://link.springer.com/article/10.1007/s10643-020-01094-w>
- Schachter, R.E., Gerde, H.K. & Hatton-Bowers, H. (2019). Guidelines for Selecting Professional Development for Early Childhood Teachers. *Early Childhood Education Journal*, Vol 47:395–408. doi.org/10.1007/s10643-019-00942-8
<https://link.springer.com/article/10.1007/s10643-019-00942-8>
- Schachter, R.E., Jiang, Q., Piasta, S.B. & Flynn, E.E. (2021). "We're More Than a Daycare": Reported Roles and Settings for Early Childhood Professionals and Implications for Professionalizing the Field. *Early Childhood Education Journal*, Vol. 50:1183–1196. doi.org/10.1007/s10643-021-01252-8
<https://link.springer.com/article/10.1007/s10643-021-01252-8>
- Scherer, E., Hagaman, A., Chung, E., Rahman, A., O'Donnell, K., & Maselko, J. (2019). The relationship between responsive caregiving and child outcomes: Evidence from direct observations of mother-child dyads in Pakistan, *BMC Public Health*, 19(1):252. doi:10.1186/s12889-019-6571-1.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6396475/>

- Schoch, A. D., Gerson, C. S., Halle, T., & Bredeson, M. (2023). *Children's Learning and Development Benefits from High-Quality Early Care and Education: A Summary of the Evidence*. OPRE Report #2023-226. Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from <https://www.acf.hhs.gov/opre/report/childrens-learning-and-development-benefits-high-quality-early-care-and-education>
- Smidt, W., & Lehl, S. (2018). Teacher–child interactions in Early Childhood Education and Care classrooms: characteristics, predictivity, dependency and methodological issues. *Research Papers in Education*, 33(4), 411–413. doi.org/10.1080/02671522.2017.1353677 <https://www.tandfonline.com/doi/full/10.1080/02671522.2017.1353677>
- Selman, S.B. & Dilworth-Bart, J.E. (2023). Routines and child development: A systematic review. *Journal of Family Theory & Review*. doi.org/10.1111/jftr.12549 <https://onlinelibrary.wiley.com/doi/full/10.1111/jftr.12549>
- Seven, Y., Hull, K., Madsen, K., Ferron, J., Peters-Sanders, L., Soto, X., Kelley, E.S. & Goldstein, H. (2020). Classwide Extensions of Vocabulary Intervention Improve Learning of Academic Vocabulary by Preschoolers. *Journal of Speech, Language, and Hearing Research*, 63(1):173-189. doi.org/10.1044/2019_JSLHR-19-00052 https://pubs.asha.org/doi/10.1044/2019_JSLHR-19-00052?utm_source=TrendMD&utm_medium=cpc&utm_campaign=Journal_of_Speech%252C_Language%252C_and_Hearing_Research_TrendMD_0
- Shillady, A., Moran, P. O., & Charner-Laird, K. (2014). Engaging Families in Diverse Communities: Strategies from Elementary School Principals. *YC Young Children*, 69(4):46–49. <http://www.jstor.org/stable/ycyoungchildren.69.4.46>
- Siller, M., Morgan, L., Wedderburn, Q., Fuhrmeister, S. & Rudrabhatla, A. (2021). Inclusive Early Childhood Education for Children with and Without Autism: Progress, Barriers, and Future Directions. *Frontiers in Psychology*, 12:754648. doi:10.3389/fpsyg.2021.754648 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8585780/>
- Simmonds, M., Llewellyn, A., Owen, C.G. & Woolacott, N. (2016). Predicting adult obesity from childhood obesity: a systematic review and meta-analysis. *Obesity Review*, 17(2):95-107. doi:10.1111/obr.12334. <https://pubmed.ncbi.nlm.nih.gov/26696565/#:~:text=Obese%20children%20and%20adolescents%20were%20around%20five%20times,around%2070%25%20will%20be%20obese%20over%20age%2030.>
- Simsar, A. & Dogan, Y. (2020). Mentor Teachers' Mentoring Practices in Science Teaching: Views of Pre-service Early Childhood Teachers. *Educational Policy Analysis and Strategic Research*, 15(1):94-113. doi:10.29329/epasr.2020.236.6 https://www.researchgate.net/publication/340161947_Mentor_Teachers%27_Mentoring_Practices_in_Science_Teaching_Views_of_Pre-service_Early_Childhood_Teachers
- Sisson, J., Shin, A-M. & Whittington, V. (2021). Re-imagining family engagement as a two-way street. *The Australian Educational Researcher*, 49(5):1-18. doi:10.1007/s13384-020-00422-8 <https://link.springer.com/article/10.1007/s13384-020-00422-8>
- Skene, K., O'Farrelly, C.M., Byrne, E.M., Kirby, N., Stevens, E.C. & Ramchandani, P.G. (2022). Can guidance during play enhance children's learning and development in educational contexts? A systematic review and meta-analysis. *Child Development*, 93(4):1162-1180. doi.org/10.1111/cdev.13730 <https://srcd.onlinelibrary.wiley.com/doi/full/10.1111/cdev.13730>
- Smidt, W. & Lehl, S. (2018). Teacher–child interactions in Early Childhood Education and Care classrooms: characteristics, predictivity, dependency and methodological issues. *Research Papers in Education*, 33(4):411-413. doi:10.1080/02671522.2017.1353677 <https://www.tandfonline.com/doi/full/10.1080/02671522.2017.1353677>
- Snyder, P.A., Hemmeter, M.L. & Fox, L. (2015). Supporting Implementation of Evidence-Based Practices Through Practice-Based Coaching. *Topics in Early Childhood Special Education*, 1-11. doi:10.1177/0271121415594925 <https://journals.sagepub.com/doi/10.1177/0271121415594925>
- Soliday Hong, S.L., Sabol, T.J., Burchinal, M.R., Tarullo, L., Zaslow, M. & Peisner-Feinberg, E.S. (2019). ECE quality indicators and child outcomes: Analyses of six large child care studies. *Early Childhood Research Quarterly*, Vol. 49:202-217. doi.org/10.1016/j.ecresq.2019.06.009. <https://www.sciencedirect.com/science/article/abs/pii/S0885200619300948>
- Staniece, E. Hegde, A.V., Graham, L. & Stage, V.C. (2023). Mentor and evaluator perspectives on North Carolina's early educator support program: a qualitative study. *Journal of Early Childhood Teacher Education*, 44(3):531-552. doi:10.1080/10901027.2022.2122639 <https://www.tandfonline.com/doi/full/10.1080/10901027.2022.2122639>

- Storli, R. & Hansen Sandseter, E.B. (2019). Children's play, well-being and involvement: How children play indoors and outdoors in Norwegian early childhood education and care institutions. *International Journal of Play*, 8(1):65-78. doi:10.1080/21594937.2019.1580338 <https://www.tandfonline.com/doi/full/10.1080/21594937.2019.1580338>
- Swanson, J.A. & Towne, M.E. (2018). Play space assessment: a pilot case study using the theoretical integration and application matrix. *Early Child Development and Care*. doi:10.1080/03004430.2018.1529032 <https://www.tandfonline.com/doi/full/10.1080/03004430.2018.1529032>
- Taboada Barber, A. & Lutz Klauda, S. (2020). How Reading Motivation and Engagement Enable Reading Achievement: Policy Implications. *Federation of Associations in Behavioral & Brain Science*, 7(1). doi.org/10.1177/2372732219893385 <https://journals.sagepub.com/doi/full/10.1177/2372732219893385>
- Tamblyn, A., Sun, Y., May, T., Evangelou, M., Godsman, N., Blewitt, C. & Skouteris, H. (2023). How do physical or sensory early childhood education and care environment factors affect children's social and emotional development? A systematic scoping review. *Educational Research Review*, Vol. 41. doi.org/10.1016/j.edurev.2023.100555. <https://www.sciencedirect.com/science/article/pii/S1747938X23000489>
- Thompson, G., Creagh, S., Stacey, M., Hogan, A. & Mockler, N. (2023). Researching teachers' time use: Complexity, challenges and a possible way forward. *Australian Educational Researcher*. doi.org/10.1007/s13384-023-00657-1 <https://link.springer.com/article/10.1007/s13384-023-00657-1>
- Timmons, K., Pelletier, J. & Corter, C. (2015). Understanding children's self-regulation within different classroom contexts. *Early Child Development and Care*, 186(2). doi:10.1080/03004430.2015.1027699 <https://www.tandfonline.com/doi/full/10.1080/03004430.2015.1027699>
- Totenhagen, C.J., Hawkins, S.A., Casper, D.M., Bosch, L.A., Hawkey, K.R. & Borden, L.M. (2016). Retaining Early Childhood Education Workers: A Review of the Empirical Literature, *Journal of Research in Childhood Education*, 30:4, 585-599. doi:10.1080/02568543.2016.1214652 <https://www.tandfonline.com/doi/full/10.1080/02568543.2016.1214652>
- Towson, J.A., Macy, M., Abarca, D.L., Myers, K. & FitzPatrick, E. (2023). Examining Teachers' Use of Dialogic Reading Strategies Following A Multiple Component Professional Development Intervention. *Early Childhood Education Journal*. doi.org/10.1007/s10643-023-01526-3 <https://link.springer.com/article/10.1007/s10643-023-01526-3>
- U.S. Department of Education (2014). *Awards: Preschool Development Grants*. Retrieved from: <https://www2.ed.gov/programs/preschooldevelopmentgrants/awards.html>
- U.S. Department of Education (2023). *Policy Statement: Inclusion of Children with Disabilities in Early Childhood Programs*. IDEA: Individuals With Disabilities Education Act. Retrieved from <https://sites.ed.gov/idea/idea-files/policy-statement-inclusion-of-children-with-disabilities-in-early-childhood-programs/>
- U.S. Department of Education (2024). *What Works Clearinghouse*. Institute of Education Sciences: WWC. Retrieved from <https://ies.ed.gov/ncee/WWC/Search/Products?searchTerm=&&ProductType=2&&&&interventionId=&publication-Date=10>
- U.S. Department of Education (2021). *Effectiveness of Early Literacy Instruction: Summary of 20 Years of Research*. Institute of Education Sciences. Retrieved from https://ies.ed.gov/ncee/edlabs/regions/southeast/pdf/REL_2021084.pdf
- U.S. Department of Health and Human Services (2023). *HHS Launches the First National Early Care and Education Workforce Center*. Retrieved from <https://www.hhs.gov/about/news/2023/02/02/hhs-launches-first-national-early-care-and-education-workforce-center.html>
- U.S. Department of Education (2018). *Preschool Development Grants Progress Update*. Retrieved from: <https://www2.ed.gov/programs/preschooldevelopmentgrants/progress-report/pdg2018progressupdate.pdf>
- Vasseleu, E., Neilsen-Hewett, C., Cliff, K. & Howard, S.J. (2022). How educators in high-quality preschool services understand and support early self-regulation: a qualitative study of knowledge and practice. *The Australian Educational Researcher*, Vol.49:915–941. doi.org/10.1007/s13384-021-00466-4 <https://link.springer.com/article/10.1007/s13384-021-00466-4>
- von Suchodeletz, A., Lee, D.S., Henry, J., Tamang, S., Premachandra, B. & Yoshikawa, H. (2023). Early childhood education and care quality and associations with child outcomes: A meta-analysis. *PLoS One*, 18(5). doi:10.1371/journal.pone.0285985. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10212181/>

- von Suchodoletz, A., Barza, L. & Larsen, R.A.A. (2020). Examination of teacher–child interactions in early childhood education programmes in the United Arab Emirates. *International Journal of Early Years Education*, 28(1). doi:10.1080/09669760.2019.1594720 <https://www.tandfonline.com/doi/full/10.1080/09669760.2019.1594720>
- Walker, D., Sepulveda, S.J., Hoff, E., Rowe, M.L., Schwartz, I.S., Dale, P.S., Peterson, C.A., Diamond, D., Golden-Meadow, S., Levine, S.C., Wasik, B.H., Horm, D.M. & Bigelow, K.M. (2020). Language intervention research in early childhood care and education: A systematic survey of the literature. *Early Childhood Research Quarterly*, 50(1):68-85. doi.org/10.1016/j.ecresq.2019.02.010 <https://www.sciencedirect.com/science/article/abs/pii/S0885200619300304>
- Weiland, C., Moffett, L. Guerrero Rosada, P., Weissman, A., Zhang, K., Maier, M., Snow, C., McCormick, M., Hsueh, J. & Sachs, J. (2023). Learning experiences vary across young children in the same classroom: Evidence from the individualizing student instruction measure in the Boston Public Schools. *Early Childhood Research Quarterly*, Vol. 63:313-326. doi.org/10.1016/j.ecresq.2022.11.008. <https://www.sciencedirect.com/science/article/abs/pii/S0885200622001284?via%3Dihub>
- Weisberg, D. S., Hirsh-Pasek, K., Golinkoff, R. M., Kittredge, A. K., & Klahr, D. (2016). *Guided Play*. *Current Directions in Psychological Science*, 25(3):177-182. doi:10.1177/0963721416645512 <https://journals.sagepub.com/doi/10.1177/0963721416645512>
- Whitebook, M., & Ryan, S. (2011). *Degrees in Context: Asking the Right Questions about Preparing Skilled and Effective Teachers of Young Children*. National Institute for Early Education Research Preschool Policy Brief. Retrieved from https://cscce.berkeley.edu/wp-content/uploads/publications/DegreesinContext_2011.pdf
- Whitebook, M., McLean, C., Austin, L.J.E., & Edwards, B. (2018). *Early Childhood Workforce Index 2018*. Center for the Study of Child Care Employment, Institute for Research on Labor and Employment. Retrieved from <http://cscce.berkeley.edu/topic/early-childhood-work-force-index/2018/>.
- Whitebread, D., Neale, D., Jensen, H., Liu, C., Solis, S.L., Hopkins, E., Hirsh-Pasek, K. Zosh, J. M. (2017). The role of play in children's development: a review of the evidence. The Lego Foundation. doi:10.13140/RG.2.2.18500.73606 https://www.researchgate.net/publication/325171537_The_role_of_play_in_children's_development_a_review_of_the_evidence
- Williams, P.G., Yogman, M. & Council on Early Childhood Committee on Psychosocial Aspects of Child and Family Health. (2023). Addressing Early Education and Child Care Expulsion. *Pediatrics*, 152(5). doi.org/10.1542/peds.2023-064049 <https://publications.aap.org/pediatrics/article/152/5/e2023064049/194508/Addressing-Early-Education-and-Child-Care?autologincheck=redirected>
- Wiltshire, C.A. (2023). Early Childhood Education Teacher Well-Being: Performativity as a Means of Coping. *Early Childhood Education Journal*, 51:1385-1399. doi.org/10.1007/s10643-022-01387-2 <https://link.springer.com/article/10.1007/s10643-022-01387-2#citeas>
- Wood, E., & Hedges, H. (2016). Curriculum in early childhood education: critical questions about content, coherence, and control. *The Curriculum Journal*, 27(3):387-405. doi:10.1080/09585176.2015.1129981 <https://www.tandfonline.com/doi/full/10.1080/09585176.2015.1129981>
- World Obesity Federation and World Health Organization (2018). *Taking Action on Childhood Obesity*. World Health Organization. Retrieved from <https://iris.who.int/bitstream/handle/10665/274792/WHO-NMH-PND-ECHO-18.1-eng.pdf?sequence=1&isAllowed=y>
- Yang N, Shi J, Lu J, Huang Y. (2021). Language Development in Early Childhood: Quality of Teacher-Child Interaction and Children's Receptive Vocabulary Competency. *Frontiers in Psychology*, 15(12):649680. doi:10.3389/fpsyg.2021.649680. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8319497/>
- Yogman, M., Garner, A., Hutchinson, J., Hirsh-Pasek, K., Golinkoff, R.M., Committee on Psychosocial Aspects of Child and Family Health, Council on Communications and Media, Baum, R., Gambon, T., Lavin, A., Mattson, G., Wissow, L., Hill, D.L., Ameenuddin, N., Chassiakos, Y(L).R., Cross, C., Boyd, R., Mendelson, R., Moreno, M.A., Radesky, J., Swanson, W.S., Hutchinson, J. & Smith, J. (2018). The Power of Play: A Pediatric Role in Enhancing Development in Young Children. *Pediatrics*, 142(3). doi.org/10.1542/peds.2018-2058 <https://publications.aap.org/pediatrics/article/142/3/e20182058/38649/The-Power-of-Play-A-Pediatric-Role-in-Enhancing>
- Zabeli, N. & Gjelij, M. (2020). Preschool teacher's awareness, attitudes and challenges towards inclusive early childhood education: A qualitative study, *Cogent Education*, 7(1). doi:10.1080/2331186X.2020.1791560 <https://www.tandfonline.com/doi/full/10.1080/2331186X.2020.1791560>
- Zucker, T.A., Cabell, S.Q. & Pico, D.L. (2021). Going Nuts for Words: Recommendations for Teaching Young Students Academic Vocabulary. *The Reading Teacher*, 74(5):581-594. doi.org/10.1002/trtr.1967 <https://ila.onlinelibrary.wiley.com/doi/10.1002/trtr.1967>