Early Childhood Essentials

A Framework for Aligning Child Skills and Educator Competencies

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LEARNING POLICY INSTITUTE

OCTOBER 2019

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Acknowledgments

The authors thank our Learning Policy Institute (LPI) colleagues Maya Kaul and Charlie Thompson for their research contributions, and Madelyn Gardner and Hanna Melnick for their review and thought partnership. In addition, we thank Erin Chase and Aaron Reeves for their editing and design contributions to this project, along with Gretchen Wright and the entire LPI communications team for their invaluable support in developing and disseminating this report. Without their generosity of time and spirit, this work would not have been possible.

This work was supported by a grant from the David and Lucile Packard Foundation. Core operating support for LPI is provided by the Sandler Foundation, the William and Flora Hewlett Foundation, and the Ford Foundation. We are grateful to them for their generous support. The ideas voiced here are those of the authors and not those of our funders.

Expert Workgroup

This work was prepared in consultation with and benefited from the insights and expertise of Ranae Amezquita, Krischa Esquivel, Nancy Hurlbut, Sydney Fisher Larson, Peter Mangione, Scott Moore, Mary Vixie Sandy, Vilma Serrano, Deborah Stipek, Erin Sullivan, Ross A. Thompson, and Marlene Zepeda. We thank them for the care and attention they gave this report.

The appropriate citation for this report is: Meloy, B., & Schachner, A. (2019). *Early childhood essentials: A framework for aligning child skills and educator competencies.* Palo Alto, CA: Learning Policy Institute.

This report can be found online at
https://learningpolicyinstitute.org/product/early-childhood-essentials-framework.

Report originally published October 15, 2019 | Document last revised November 20, 2019
Revisions are noted here: https://learningpolicyinstitute.org/ecefacsec-update.

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Executive Summary

Researchers across a wide range of disciplines agree that early childhood education has the potential to help support optimal development and contribute to ensuring that all children enter school ready to succeed. Well-designed and well-implemented early childhood programs can foster meaningful gains in school readiness, as well as long-term benefits such as lower rates of special education placement, reduced grade retention, and higher graduation rates. High-quality early education also has the potential to narrow achievement gaps when young children gain the most from the experience.

Central to high-quality early childhood experiences is the ability of early childhood educators (early educators) to offer instruction that fosters the skills children need to succeed in school and in life. Further, children's development is supported by a thoughtful progression from early learning goals and objectives to instruction in the elementary grades. In order to ensure continuity and improve child outcomes, educators and education leaders from birth through age 8 must maintain a clear, concise, and developmentally appropriate delineation of the goals, objectives, and approaches to teaching and learning.

The purpose of the Early Childhood Essentials Framework is to synthesize and communicate the essential skills and competencies children should be acquiring before they enter kindergarten and the related skills and competencies early childhood educators must cultivate in order to provide high-quality early learning experiences that will set all children on the path to success in school and in life. The unique goals of this framework are to clearly convey the link between early educator competencies, early education practice, and the school readiness and success of all children and to acknowledge the foundational conditions necessary for children and educators to achieve these essential skills and competencies. This framework provides a baseline of knowledge to help decision-makers think critically about how to improve the early learning programs they oversee.

The Essential Child Skills

Throughout this framework, *essential child skills* are defined as those skills that predict later school success or are foundational to predictive skills. We analyzed the body of research and guidance that describes developmental trajectories of essential skills for infants, toddlers, and preschoolers that can be influenced and scaffolded by educator practice. From our analysis, we identified five key developmental areas:

1. **Social-emotional development** refers to children's abilities to engage in meaningful relationships with adults and peers; recognize, express, and regulate their own emotions and respond appropriately to the emotions of others; and develop social skills and understanding.
2. **Cognitive development** includes children's abilities to engage in imitation and symbolic play as well as their early cognitive skills of executive function, such as holding and manipulating information in their minds, sustaining their attention on a task, shifting their attention when appropriate, and controlling their impulses.

3. **Language and literacy development** captures the ability of children to communicate effectively along a continuum that includes gestures, facial expressions, and eventually language to communicate needs, emotions, and thoughts, as well as early literacy skills that lay the foundation for children to become successful readers and writers as they enter school.
4. **Mathematical and scientific reasoning** encompasses the development of skills such as number sense, algebraic and geometric thinking, and spatial awareness and measurement, as well as young children's emerging exploration and discovery skills that develop into intentional scientific inquiry skills as they master their worlds.
5. **Physical development** refers to a range of skills, most commonly motor development, that support children's abilities to explore their environments fully and interact with people and things.

Research shows that children develop these discrete skills in a highly integrated progression. A child's progress in developing one skill set can accelerate or impede progress in another area.

The Essential Early Educator Competencies

Throughout this framework, we define *essential educator competencies* as those identified by researchers and practitioners as critical for providing children with learning and play experiences that promote development of the essential child skills. Based on an analysis of the research and guidance on the essential skills for educators of infants, toddlers, and preschoolers across settings, we identified five key competency areas:

1. **Developmentally appropriate practice and environments** refer to an educator's knowledge and use of developmentally appropriate practices to support and guide children's learning across and within each essential child skill area, as well as his or her ability to effectively construct and manage physically and emotionally supportive learning environments and activities to match the age, cultural, and individual needs of children.
2. **Observation and assessment of development and learning** encompass an educator's ability to regularly identify, select, and use observation techniques and assessments to understand the learning progression and trajectory of each child to individualize learning, including techniques that are sensitive to and appropriate for children from non-English-speaking homes and who may have experienced trauma and adverse childhood experiences.
3. **Individualized supports and inclusion-based practices** capture an educator's ability to provide safe and inclusive learning environments and activities; to individualize learning experiences to support all learners, including dual language learners, children with special needs, children who exceed developmental expectations for their age, and children who experience trauma and adverse childhood experiences; and to work collaboratively with a multidisciplinary team and the family to provide individualized supports.
4. **Family support and partnership** include an educator's ability to initiate and engage in regular and responsive communication with families, collaborate with families to ensure consistency between home and the learning environment, and support culturally and linguistically diverse families.

5. **Continuous improvement and professionalism** recognize that early educators are professionals and should have the ability and opportunity to engage in reflection, develop and use professional development plans, participate in professional learning, develop collaborative leadership skills, and maintain professional and ethical standards to excel.

Early educators need to acquire and refine each of these competencies, which work holistically. Effective educators must be able to utilize developmentally appropriate practices and environments to observe and assess children's development and learning, and ultimately provide individualized supports and inclusion-based practices. Likewise, educators' competencies in continuous improvement and professionalism and their abilities to engage in family support and partnership will support their capacity to provide high-quality learning experiences that fulfill the promise of early education for every child.

Foundational Conditions

To thrive, young children need to be healthy and feel safe and secure at home and in their early learning setting. Early childhood programs have a role to play in helping to ensure all children have their basic needs met by participating in the comprehensive system of services for children and families, referring families to community resources, or, in some cases, providing direct services that children need to thrive. This includes adequate nutrition; continuity of care; access to physical, dental, and mental health services; stable and safe housing; and access to specialized educational supports.

Similarly, for early learning programs to prepare children for academic success, early educators need to be prepared, compensated, and supported to excel in the complex work of providing high-quality early learning experiences. Early educators need extensive support, through college-level preparation and ongoing job-embedded professional development, and a supportive environment to be able to consistently provide intentional, individualized learning activities that scaffold each child's acquisition of essential skills. Currently, the odds are stacked against early educators achieving the competencies outlined in the framework because of poor compensation, relatively low standards for preparation, and lack of investment in professional supports, including little or no paid time for professional learning, planning, and collaboration.

Conclusion

Child development is multifaceted, and providing high-quality early learning experiences is complex work. Although not every decision-maker with influence over early childhood programs needs to understand every nuance of these complex concepts, it is critical that decision-makers develop and maintain a basic understanding of the essential child skills and the essential educator competencies and acknowledge the foundational conditions necessary for children's readiness to learn and educators' abilities to succeed. This fundamental understanding will support leaders in making informed decisions to ensure educators have the resources they need to provide every child with the opportunity to enter school ready to thrive.

Background

There is overwhelming evidence that children's early years are a crucial time for their development.[1] Researchers across a wide range of disciplines—program evaluators, neuroscientists, geneticists, and economists—agree that early childhood education has the potential to support optimal development and ensure all children start kindergarten ready to succeed. And when it comes to early childhood education programs, quality is critical. Well-designed and well-implemented programs can foster meaningful gains in school readiness, as well as long-term benefits such as lower rates of special education placement, reduced grade retention, and higher graduation rates.[2] High-quality early education also has the potential to narrow achievement gaps when vulnerable populations of young children, including children from low-income families and dual language learners (DLLs), gain the most from the experience.[3]

Lasting benefits for children depend upon high-quality learning experiences from birth through the elementary grades.[4] The early learning continuum is enhanced throughout childhood when there is a thoughtful progression from early learning goals and objectives to instruction in the elementary grades. Aligning goals, objectives, and approaches to teaching and learning from birth through age 8 requires educators and education leaders to maintain a clear and concise delineation of what children need to know and be able to do. This information is a fundamental resource for all early childhood educators (early educators) across diverse settings, including family child care homes, child care centers, preschools, and public school systems, because it is critical to every early educator's ability to craft individualized high-quality early learning opportunities for all children.

Furthermore, education leaders must understand the knowledge and skills that early educators need to consistently cultivate as professionals in order to implement the practices necessary to support children's development. Effective educators are able to gather information about childhood development through observation, assessment, and conversations with families and use this critical contextual information to appropriately support and individualize learning activities for every child. Effective educators are able to craft early learning opportunities across the developmental spectrum, including social-emotional, cognitive, language and literacy, mathematics and science, and physical development. Early educators also consistently cultivate their knowledge and skills to better support diverse populations of children, including DLLs; children who have experienced adverse childhood experiences, chronic stress, or trauma;[5] and children whose progress falls outside of typical developmental trajectories.

Young children need be healthy and feel safe and secure at home as well as in their early learning setting in order to be ready to learn. Early childhood programs have a role to play in the system responsible for ensuring every child has access to the services and supports he or she needs to thrive, including adequate nutrition; continuity of care; access to physical, dental, and mental health services; stable and safe housing; and access to specialized educational supports (for more detail, see "Foundational Conditions for Children to Learn" on page 3). Although the role of individual early learning programs will vary, it is critical that leaders and early educators understand the importance of children's basic needs being met and actively engage in the system as appropriate to support children and families in accessing services.

Similarly, early educators need extensive support, through college-level preparation and ongoing job-embedded professional development, and a supportive environment to be able to consistently provide intentional, individualized learning activities that scaffold each child's acquisition of essential skills (for more detail, see "Foundational Conditions for Educators" on page 16).

This framework is intended to provide an overview of the importance and complexity of early childhood development and offer insight into the competencies early educators must cultivate in order to provide high-quality early learning experiences that will set all children on the path to success in school and in life. State and local policymakers, as well as local early education leaders, including program administrators, site supervisors, center directors, family child care home education networks, resource and referral agencies, school principals, and school board members, directly influence preparation and professional development, play an important role in funding to support compensation for early educators, and often directly oversee early learning environments. It is critical that these decision-makers understand the developmental trajectory of essential child skills and the role of educator competencies in supporting skill development for all children so that they invest in and deliver the supports that early educators need to help young children succeed.

This framework helps to provide a baseline of knowledge to aid decision-makers in thinking critically about how to improve the early learning programs they oversee. For additional documents and resources that provide a deeper discussion of the topics this framework explores, see Appendix A. Readers who wish to build upon the knowledge they gain from reviewing this framework are encouraged to explore these other resources.

The Framework

The purpose of the Early Childhood Essentials Framework, described here and shown in Figure 1, is to synthesize and communicate the literature on essential child skills and educator competencies. This framework joins other documents, in California and nationwide, aimed at describing these skills (see Appendix A). Specifically, the framework presents the typical developmental trajectories of essential child skills that are critical for all adults involved in the early education system to understand. The framework also provides a review of effective educator competencies that should be cultivated in and by all early educators in order to provide high-quality, effective early learning opportunities. The unique goals of the framework are to clearly convey the link between early educator competencies, early education practice, and the school readiness and success of all children and to acknowledge the foundational conditions necessary for children and educators to achieve these essential skills and competencies. Early education leaders need the information conveyed here to be able to support children and educators across diverse early learning environments.

Foundational Conditions for Children to Learn

In order for young children to thrive, they need to be healthy and feel safe and secure at home and in their early learning settings. The research identifies five basic needs that must be met for children to be ready to learn.[6] Each of these conditions is critical to a child's health and well-being and lays the foundation for his or her ability to learn effectively from early childhood experiences. These conditions are:

- adequate nutrition;
- continuity of care;
- access to health services, including dental health and mental health supports;
- stable and safe housing; and
- access to specialized educational supports.

Poverty is a key risk factor for young children and can fundamentally interfere with a child's readiness to learn. For example, poverty can negatively affect how the body and brain develop; living in poverty can impact the safety and security of a child's housing; and children living in poverty often lack access to health services and adequate nutrition.[7] Early childhood education (ECE) programs cannot inoculate children from the effects of poverty. However, ECE programs often play a role in helping to ensure all children have their basic needs met by participating in the comprehensive system of services for children and families, referring families to community resources, or, in some cases, providing direct services. Many ECE programs provide healthy meals to children to support their access to adequate nutrition or promote continuity of care by reducing the number of caregiver changes a child experiences within the program. Some ECE programs, such as Head Start, also play a role in referring families to social service programs that offer critical services, such as health services, housing subsidies, and specialized educational supports. Regardless of the role a program plays in meeting children's needs, understanding the extent to which these foundational conditions are being met is critical to appropriately supporting children's developmental progress.

Essential Child Skills

Throughout this framework, essential child skills are defined as those skills that predict later school success or are foundational to predictive skills. The skills included in this framework stem from an analysis of the research and guidance that describe developmental trajectories of essential skills for infants, toddlers, and preschoolers and are limited to those skills that can be influenced and scaffolded by educator practice (see Appendix A). We identified five key developmental areas across the early learning standards and guidance documents we reviewed:

1. Social-emotional development
2. Cognitive development
3. Language and literacy development
4. Mathematical and scientific reasoning
5. Physical development

Although this framework includes five discrete areas of child development and describes developmental trajectories of essential skills within each of these areas, research shows that children develop these discrete skills in a highly integrated progression. A child's developmental trajectory in one area may be fundamentally linked to the child's progress in another. For example, language development is foundational not only to literacy but also to children's ability to grasp key mathematical concepts, manage their emotions, and communicate them effectively with their educators and peers. Child development is also highly variable, and individual children do not develop at the same pace across every area. For example, a child may excel in communication and language skills but struggle with fine motor development.

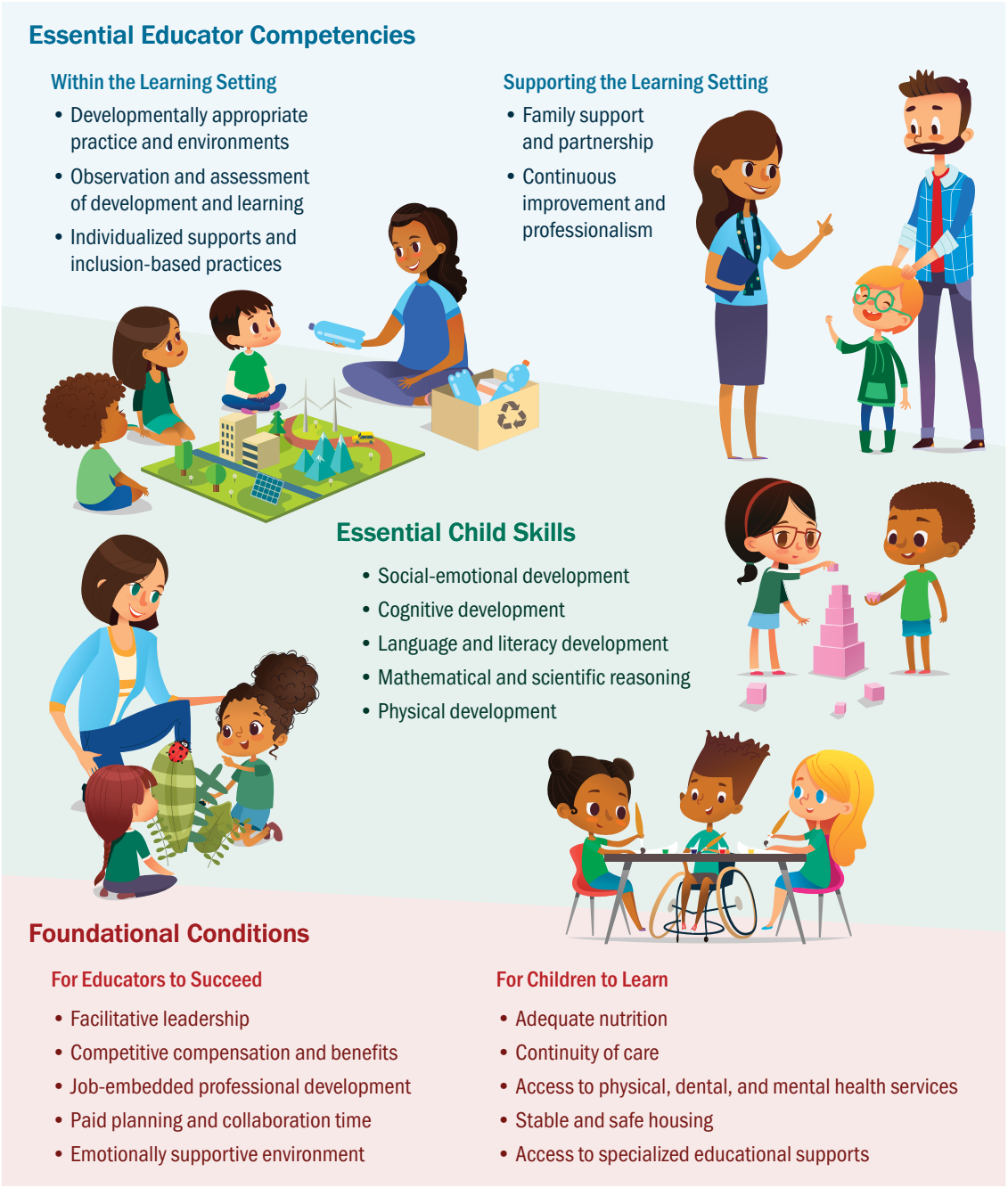
> A child's developmental trajectory in one area may be fundamentally linked to the child's progress in another.

Furthermore, there is a cross-cutting concept in child development, which is sometimes highlighted as its own discrete area of development, called Approaches to Learning.[8] Approaches to Learning involves children's initiative, curiosity, creativity, and persistence as learners. Although this framework does not include Approaches to Learning as a stand-alone area of child development, we do include the skills often categorized under this area throughout the framework. It is important for educators and education leaders to understand that supporting children's ability to successfully navigate learning experiences influences their development holistically and directly contributes to success in school. Research has demonstrated that particularly important aspects of becoming a successful learner are developing the ability to self-regulate,[9] which this framework covers under Social-Emotional Development, and executive functioning,[10] which this framework covers under Cognitive Development. Many factors influence how children approach learning, and this framework acknowledges that fact by integrating children's development of curiosity, persistence, and creativity into every area of development.

Although the age guidelines provided in this framework are broad, they describe the timing of skill acquisition in *typically developing children* who have been appropriately supported by adults. As children age, they build on their early experiences and skills to learn more complex ways of communicating with, exploring, and engaging with the world around them.

Finally, development occurs in the context of each child's familial, linguistic, and cultural backgrounds. DLLs, for example, may not demonstrate the full scope of their skills when interacting with predominantly English-speaking adults or peers. In addition, many aspects of development, especially social-emotional skills such as self-regulation and expression of emotions, may be culturally determined. For example, social and cultural conventions influence expectations to initiate conversation, when and how to ask questions or interrupt during conversation, and whether children should make eye contact or avoid it during conversation with adults.[11]

Figure 1
Early Childhood Essentials Framework



Social-Emotional Development

Social-emotional development refers to children's ability to engage in meaningful relationships with adults and peers; recognize, express, and regulate their own emotions and respond appropriately to the emotions of others; and develop social skills and understanding. There are three key categories of skills that form the foundation of social-emotional development, which research suggests are critical for later school success.

First, children need to develop trusting relationships with adults early in life to feel secure and to develop social competence. Children learn from experience, and strong bonds with their caregivers enable them to explore new relationships and environments and to expand their understanding of the world around them without anxiety. As children develop, they also interact with and develop relationships with each other. These interactions provide opportunities to practice communication, express and interpret emotions, and develop social skills such as problem-solving and compromise. Second, children need to develop social and emotional competence in order to understand their own emotions and the emotions of others, what other people are like and how to interact with them, and how their identity shapes their interactions with adults and other children. Third, children need to develop self-regulation, or the ability to manage their own behaviors and emotions in order to interact effectively with others; engage with academic content successfully; and navigate challenging or frustrating tasks.

Positive relationships

As children interact with peers and adults, they begin to form relationships. These relationships create the foundation for children's healthy development in every area.[12] Specifically, with appropriate support, children typically develop and demonstrate positive relationships with primary caregivers, familiar adults, and peers.

> Relationships create the foundation for children's healthy development in every area.

Relationships with primary caregivers. From infancy, a secure attachment to at least one primary adult caregiver is particularly important for child development and later school success. Children use their primary caregivers as sources of security and support as they explore and learn. Children with secure attachments seek comfort and communicate about their feelings with their caregivers. As children age, they should also seek the support of these adults when resolving conflicts with others and learning how to socialize with others.

Relationships and interactions with familiar adults. Most young children comfortably interact with familiar adults during learning, play, and difficult situations. Preschoolers learn to ask questions, communicate about their experiences and feelings, and follow instructions. In infancy and toddlerhood, most children are comfortable with engaging in activities initiated by adults. As children age, they should take increasing initiative in interacting with familiar adults through conversation, suggesting a shared activity, or asking for the adult's assistance in various situations.

Relationships and interactions with peers. Very young children interact with their peers at first through acknowledgment and parallel play. Older children engage in shared activities, cooperation, pretend play, and conflict resolution with peers. How children navigate these interactions is an important aspect of developing meaningful relationships with their peers. Preschoolers who have engaged in healthy peer interactions begin to develop reciprocal friendships, which provide further opportunities for the development of social skills and self-confidence.

Social and emotional competence

Children's social and emotional competence includes children's understanding of their own emotions and the emotions of others as well as their sense of self and their understanding of how to interact with adults and other children.

Emotional understanding. From an early age, children learn to recognize and express a range of emotions across contexts. Infants attend to the emotions of others with interest and express basic emotions, including comfort, enjoyment, and fear. As children grow, they express a wider range of emotions, including pride, embarrassment, and shame. By preschool, children who have been appropriately supported are able to use words to describe some of these emotions, such as happiness, sadness, or anger. During this time children also develop the ability to identify and label the emotions of others in interactions, books, or stories. Understanding the emotions of others is central to the development of empathy in the toddler and preschool years. Empathy refers to children's ability to identify the emotions of their peers and react appropriately. For example, a child might offer a favorite toy to a classmate who has fallen and scraped her knee.

Social understanding and competence. Interactions with adults and peers help children begin to understand people's emotions and how to interact positively with them. This basic skill helps infants and toddlers coordinate their behaviors and interests with familiar adults and other children. As children mature, they participate in sustained activities with others, such as working together on a project, sharing a story or conversation, or engaging in complex pretend play. Children also acquire skills in resolving conflict, including turn-taking, negotiation, and compromise, usually with support from adults.

Sense of self. The research literature supports a strong sense of self as foundational to children's ability to develop meaningful relationships with others. This includes children's physical self-awareness, such as the ability to describe their own physical characteristics and behaviors, as well as children's social awareness of their identity in relationship to others. Early in toddlerhood, with adult guidance, children are able to recognize that they are unique individuals who have abilities, characteristics, emotions, and interests. By preschool, children who have been appropriately supported are able to express their own ideas or beliefs in interactions with others and will use positive words to describe themselves, such as "fast runner," "smart," or "kind." They are beginning to express confidence in their own abilities, often demanding independence during increasingly complex tasks, and when appropriately supported, they face challenges with a growth mindset. In other words, children should recognize that each new task presents an opportunity to learn about their world and understand that their effort to master their environment, not any specific goal, per se, is most important. DLLs should be supported to recognize their ability to speak multiple languages as a strength and an integral part of their identities. Preschoolers become able to identify some similarities and differences between themselves and others and begin to identify themselves as belonging to different groups, such as a family, community, culture, faith, or school.

Self-regulation

The research literature identifies two key areas of self-regulation: behavioral regulation and emotional regulation. In infancy, children rely on consistent, responsive relationships to help them regulate their emotions and behaviors. Children who are adequately supported early on will gradually learn to regulate their emotions and behavior independently. When children are able to manage their own emotions and behavior, they are better equipped to engage successfully in learning activities, and their development in all other areas is bolstered.[13]

Behavioral regulation. In infancy and toddlerhood, with coaching, children gradually develop an ability to maintain engagement in interactions with familiar adults and children, focus their attention on a simple task or activity for short periods of time, and persist in learning new skills or solving problems. During preschool, children develop the ability to adjust to changes in routines, show flexibility and persistence in problem-solving by trying more than one approach, and develop an awareness of and ability to follow rules most of the time. By the end of preschool, children demonstrate the ability to manage their actions and words, such as waiting their turn to play with a desirable toy or using an inside voice during story time.

Emotional regulation. Starting in infancy, through positive relationships with primary caregivers and familiar adults, young children develop the ability to cope with their emotions. Crying infants are calmed or quieted by physical contact with familiar adults, such as holding or rocking. Young children learn that they can rely on familiar adults for assistance when their emotions become strong and overwhelming. As children age, they learn to self-comfort during periods of mild distress and seek out comfort and reassurance from adults only when emotions are particularly intense, prolonged, or new. By the time they enter preschool, most young children demonstrate the ability to cope with strong emotions, such as anger, and express emotions in ways that are appropriate to the situation and cultural context. Older children begin to understand that their emotions and behaviors can affect others and have consequences—such as learning that taking another child's toy makes that child upset. With proper support, older children also demonstrate the ability to persist in the face of challenges despite the negative emotions, such as frustration or disappointment, that often accompany not being able to complete a task on the first attempt.

Cognitive Development

By nature, children are ready and willing to explore and experiment with the world around them. Their ability to interact and communicate with adults and other children facilitates their ability to learn from these experiences. Early cognitive skills include executive function—including children's ability to hold and manipulate information in their mind, sustain their attention on a task, shift their attention when appropriate, and control their impulses—and imitation and symbolic play.

By nature, children are ready and willing to explore and experiment with the world around them. Their ability to interact and communicate with adults and other children facilitates their ability to learn from these experiences.

Cognitive development is tightly intertwined with all other areas of children's development. Impulse control, for example, is critically important to collaboration and developing relationships with peers; imitation plays a central role in language learning; and developing math and literacy skills requires attention and working memory.

Executive function

Executive function skills act as the brain's air traffic control system, allowing children to remember instructions, focus attention, plan, and juggle multiple tasks successfully to set and achieve goals.[14] The executive function skill set includes working memory, which is children's ability to hold and manipulate information over short periods in their mind; inhibitory control, which is children's ability to control their impulses and set priorities; and cognitive flexibility, which is children's ability to sustain or shift their attention in response to different demands.

Working memory. Before they are able to articulate their memories verbally, infants and toddlers demonstrate their memory skills through their behavior. Very young children quickly develop the ability to notice when something changes after it has been out of view momentarily. Young children's capacity to remember one change develops into the ability to notice and remember multiple changes. During preschool, children who have been supported in their memory development begin to develop the ability to hold and manipulate more information in their minds over short periods of time to complete tasks. Preschoolers are able to hold a list of directions in their minds and follow them, with limited assistance from adults. For example, preschoolers should be able to successfully put puzzle pieces back in their box, put the box away, and line up to go to the playground after being asked by an adult. As another example, if they are handed three or more objects, with the proper support they can count them and hold in mind for a short period of time the number of objects they counted.

Inhibitory control. In infancy and toddlerhood children often have trouble filtering out distractions and accepting delays of desired outcomes—such as an infant who becomes distressed when he sees his bottle is being warmed up. During preschool most children develop the ability to filter and control impulses and distractions and pause before they act. This capacity makes it possible to switch tasks with support from adults and resist temptations, such as waiting their turn during a game. Preschoolers are also usually able to refrain from responding impulsively across circumstances, such as waiting to be called on during story time or asking an adult for permission to use materials rather than grabbing them.

Cognitive flexibility. Children's ability to switch gears and adjust to changing demands or perspectives enables them to try more than one strategy when they encounter a challenging task and to adjust to changes in their environments and routines. This ability is essential to successfully maneuvering between different settings—including traditional school and other early learning contexts.

In infancy, children begin developing the ability to focus on a simple task, such as reaching for a specific toy before learning to crawl, and learning new routines, such as feeding themselves. Toddlers are able to maintain their interest and engagement in short activities or conversations with adults and other children and demonstrate flexibility by adjusting to changes in their routines when prepared for the change before it occurs. By preschool, children are beginning to develop and demonstrate their flexibility by trying more than one approach to overcome a challenge. For

example, when preschoolers find a desired toy is out of reach, they may pull a stool over to extend their reach and then ask an adult for help if their first attempt fails. This flexibility of thinking and behavior is critical to mastering mathematical and scientific reasoning, learning exceptions to rules of grammar, and trying different strategies to resolve conflicts with peers.[15]

Cognitive Development in Dual Language Learners

Importantly, DLLs maintain a greater capacity to recognize the sounds of the multiple languages that they hear. This capacity is associated with differential brain functioning, such as selective attention to environmental stimuli that is associated with enhanced cognitive and inhibitory control. Research also suggests that young DLLs, due to bilingual exposure, demonstrate higher performance in executive function tasks. This is likely related to their cognitive flexibility, brought about as a result of learning more than one way to represent objects and thoughts and switching languages to interact with different people.

Imitation and symbolic play

Infants and toddlers demonstrate early cognitive skills by observing and imitating sounds and words, as well as the gestures and actions of familiar adults and peers. As children develop, they learn to imitate adults by watching their steps and then repeating them in play. They may imitate adult conversations. They move from simple imitation to symbolic, or pretend, play by using everyday objects to represent something else and by involving adults and other children in their play, which grows increasingly complex over time. By the end of preschool, children's symbolic play may involve assigning roles—for example, a child might give the following directions to set up a play scenario with her peers: "I'll be the mommy, Jamal is the baby, and Doctor Sarah will give the baby a checkup."

Language and Literacy Development

The ability to communicate effectively is a fundamental skill for all children. Communication develops along a continuum and includes the use of gestures, facial expressions, and eventually language to communicate needs, emotions, and thoughts. Early exposure to books and reading allows young children to develop vocabulary and an understanding of how books work, from grasping the concept that pictures and symbols carry meaning to developing an understanding of sequence, relationships, and plots in stories. These early literacy skills lay the foundation for children to become successful readers and writers as they enter school.[16]

Communication and language development

Children's communication and language skills set the foundation for language and literacy development throughout school and also have implications for their development of social-emotional, mathematical, and scientific reasoning skills.

Communication. Infants and toddlers are developing their ability to make sense of language and communicate both verbally and nonverbally. In infancy, children rely on gestures, facial expressions, eye contact, and vocalizations to communicate. Even at this early age, children can begin practicing the rules of communication, such as turn-taking in conversations. Young children

also begin to develop receptive language skills, or the ability to understand what is spoken to them. By preschool, nonverbal communication is used in partnership with oral language to express emotions, convey thoughts, and tell increasingly complex stories.

Language. As children move from infancy into toddlerhood, they begin to develop an age-appropriate vocabulary. Toddlers expand their vocabularies quickly while learning to use language to express their needs. By age 3, children typically initiate basic conversations and respond to the feelings, thoughts, and ideas of others. They should also engage in basic inquiry by asking and answering simple questions.

As children enter and move through the preschool years, their vocabularies grow exponentially as they develop the ability to use language in a variety of ways. They learn to talk about the past and future, follow directions, ask questions, and use increasingly complex sentences. Preschool-age children begin to formulate guesses about the meaning of new words from the context of a conversation or story. They also begin to categorize words or objects by identifying shared characteristics among people, places, or things.

By the end of preschool, children's pronunciation improves, and they are typically able to communicate clearly enough to be understood by familiar and unfamiliar adults. Preschool-age children should also begin to understand and use appropriate grammar and learn to match their tone and volume to the situation, such as shouting when expressing surprise or using a whisper to tell a secret.

Language Development in Dual Language Learners

Language and literacy skills can develop in any language, and research consistently shows that supporting children's home language development helps prepare them to learn English[17] and bolsters their development in other areas, including social-emotional development and literacy skills.[18] It is important to remember that progress in language is distributed across multiple languages. For example, children who are learning two languages comprehend concepts associated with words in the language in which they learned a particular concept; thus, it is normal for DLLs to code-switch, or mix languages during complex linguistic tasks—such as when telling a story. As a result, it is critical that both instruction and assessments of child progress take the child's differential language comprehension across languages into account. Language and literacy can be developed in any language, and ample research has established that supporting young children's home language not only promotes their ability to learn English but is also associated with enhanced cognitive flexibility.

Literacy development

Throughout early childhood, young children acquire knowledge and skills that lay the foundation for reading and writing. As adults read to, sing to, talk to, and engage in reciprocal conversations with infants, toddlers, and preschoolers, they are supporting the development of literacy skills.

Phonological awareness. At an early age, children begin to understand that speech sounds convey meaning. Older children are beginning to grasp how language is structured and to develop an understanding that language is composed of simple and more complex sounds. They notice

patterns in those sounds—such as recognizing that *mommy*, *milk*, and *mine* all begin with the /m/ sound. With guidance from supportive adults, they begin to understand and enjoy rhymes and other manipulations of the language sounds.

Print concept. Through infancy and toddlerhood, children who are read to develop an understanding of familiar books by associating the pictures with the story adults read to them. They may ask adults to read favorite books again and again. Toddlers who are exposed to books begin to understand simple concepts about written material—such as how to hold a book and turn the pages. Some young children may pretend to read. By age 3, children should be able to ask and answer questions about familiar books and can usually identify the feelings of characters in the story. Young children begin to understand that letters are associated with unique sounds. For example, young children may point to and label some letters or characters in their own names and will learn the names of most letters and their associated sounds. By the end of preschool, children understand that print carries specific meaning and begin to develop an understanding that print is organized differently for different purposes, such as in books, on signs, or as part of lists. They may recognize familiar street signs—such as knowing that a stop sign tells drivers to stop and look before driving on. Through proper instruction, older children begin to understand that words are groupings of individual letters.

Reading and comprehension. With appropriate exposure, children begin to understand how books are read at a young age. They can learn that books have a title and an author and that the process for reading books follows a consistent pattern. For example, an English-speaking child would learn that books are read from left to right, top to bottom. During preschool, children may begin to recognize simple words or symbols while reading familiar books. Most older preschoolers are able to answer questions about stories with increasingly specific information that may require making predictions or inferring feelings or intentions of characters in a book.

Writing. With support and opportunities to practice, children also begin to develop their writing skills—which are highly related to fine motor skills—at an early age. Toddlers learn to make marks on paper and talk with others about what the marks represent to them. By the end of preschool, children become interested in copying simple words or symbols and can be taught to write their own first names. Preschoolers also learn to use drawing for a variety of purposes, including to tell a story.

Mathematical and Scientific Reasoning

Children's mastery of early mathematical and scientific reasoning has been linked by researchers to later school success.[19] As children develop their language skills, they begin to appreciate the ways in which numbers and their senses help them describe, represent, and understand their world.

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Mathematical reasoning

Young children begin to develop mathematical reasoning skills in infancy and can eventually develop number sense, the ability to engage in algebraic and geometric thinking, and an understanding of spatial awareness and measurement.

Number sense. Children's development of number sense—an understanding of numbers, operations, and their symbolic representations—begins in infancy. In infancy, children quickly develop a basic sense of quantity and have the ability to recognize quantity by detecting differences in small sets of objects without counting. As toddlers acquire and use language, they begin using relational words or gestures to request changes in quantity—such as "more" or "done." As young children develop, they can learn to count objects, say numbers in correct order, and eventually develop an understanding of cardinality—that the last number in a counting sequence represents the total number of objects in a set. As children develop a more sophisticated understanding of quantity, they begin to recognize that each successive number in a counting sequence refers to a larger quantity than the previous number. They can also begin to develop a basic understanding of operations, including that addition increases a quantity and subtraction decreases a quantity. With assistance, children should learn to count from a number other than 1 to perform addition, and practice taking away fingers or objects to represent subtraction. By the end of preschool, children should understand that written numerals symbolize number quantities and can recognize and write some numerals.

Algebraic thinking. In the preschool years, children develop a growing understanding of the relative sizes of shapes, objects, and quantities and learn how to categorize objects based on these qualities. Children also develop the ability to recognize patterns and regularities in the environment. By the end of preschool, young children are typically able to duplicate simple patterns, identify missing elements in simple patterns, and extend patterns by adding on to existing patterns in correct sequence.

Geometric thinking and spatial awareness. Young children develop geometric thinking skills as they learn about and understand shapes and positions of objects in space. In infancy and toddlerhood, this development is demonstrated by children as they explore objects in space, expanding their awareness of how objects fit together, such as stacking cups, or move through space, such as a toy car pushed across the floor. From their earliest years, children must learn about near and far, up and down, under and over, and other spatial relationships in order to successfully navigate their environments. By the end of preschool, children can name basic shapes and compare and contrast different shapes in terms of number of sides or relative size. Preschoolers can describe the placement of objects in space. Older children are typically able to create shapes from their components—such as putting two triangles together to create a rectangle. As children gain more experience moving and interacting in a variety of environments and their gross and fine motor skills improve, they can learn to throw balls through hoops and position blocks to create structures such as buildings or towers.

Measurement. In the preschool years, children begin to develop an understanding of measurement. They learn to identify measurable attributes, including quantity; compare groups of objects; and identify whether one group is more than, less than, or the same as another. By the end of preschool, children are typically able to use comparative language to describe their worlds and the objects and people in them, such as smallest, taller, or heavier. Children may use nonstandard measurements. For example, they may measure their own height by saying they are taller than the kitchen table.

Scientific reasoning

Scientific reasoning refers to young children's emerging exploration and discovery skills that develop into intentional scientific inquiry skills as they master their worlds.

Exploration and discovery. Children are naturally curious and, starting in infancy, can express increasing curiosity and creativity as they make sense of their worlds. Young children will explore the people and objects in their environment to learn more about themselves and how objects and people relate to each other. Even in infancy, young children notice the stability of their environment and will react to changes. For example, infants notice when their caregivers change, and a toddler may look for a peer who is out sick by checking under the table or behind the door. Children use the information they learn about their environments to make simple predictions—such as whether an object will sink or float. By the end of preschool, as children become familiar with their environments and specific phenomena, they begin to draw on their knowledge and previous experiences to hypothesize about the cause of a phenomenon or make predictions about what will happen next.

Scientific inquiry. As children engage in scientific inquiry, they acquire knowledge about the world and hone their reasoning and problem-solving skills. Infants and toddlers usually approach new experiences and materials with interest and curiosity. For example, an infant or toddler might examine the shape, smell, and taste of a block before throwing it across the room and laughing at the sound it makes. As children age, they learn to ask questions about what things are and how they are used. In preschool, scientific inquiry involves children answering questions by using their senses to make observations, gathering data, and talking with adults and peers about what they observe. Preschoolers can also typically learn to use scientific language to describe their activities and observations. For example, they can learn to use words such as *measure*, *predict*, *experiment*, or *reaction*.

By the end of preschool, young children who have been given the opportunity to observe and investigate their environments can learn to categorize objects, events, or phenomena based on their observations—such as by color, odor, taste, texture, and size—and to quantify and compare similarities and differences across their observations. For example, children may observe that bananas and lemons are both yellow, but one tastes sweet and the other is sour. By the end of preschool, most young children can learn to analyze and summarize their observations and draw conclusions about the world based on their investigations.

Physical Development

Physical development refers to a range of skills, most commonly focused on motor development. Motor skills support children in fully exploring their environment and interacting with people and things. Physical activity and development in the early years predict whether children will be obese or overweight, which is linked to overall health, cognitive development, social-emotional learning, and peer relationships.[20] As a result, physical development has the potential to impact their development in every other area.

> Physical development has the potential to impact children's development in every other area.

Gross motor skills

Children's developing ability to move large muscles is referred to as their gross motor skills. In infancy, children learn to use their large muscles to move—beginning perhaps with reaching for an appealing toy and progressing to rolling over and then crawling. As infants and toddlers develop, they use increasing control of their bodies to explore and gain a greater awareness of their environment, including reaching, grasping, scooting, crawling, cruising, and, eventually, walking, running, and jumping.

Preschoolers are expected to display greater control, strength, and coordination of their large muscles. Typically, they can adjust their speed or direction while walking or running to match their environment and can change directions while moving without difficulty. By the end of preschool, most children are able to experiment with different ways of moving their bodies and should demonstrate balance and coordination in large muscle movements, including by swinging on a swing, climbing a ladder, pedaling a tricycle, or dancing to music.

Finally, in the preschool years, children typically develop a sense of body awareness. They are able to consider how their own bodies relate to other objects in space and should be able to move their bodies purposefully to be in front of, beside, or behind other people or objects. They may demonstrate these skills in play by engaging in games such as tag or by positioning themselves to kick or catch a ball. Research suggests that physical activity in which children practice and demonstrate these skills may promote executive functions, which can affect children's academic performance.[21]

Fine motor skills

Children's ability to move their small muscles to perform intricate tasks is referred to as their fine motor skills. Infants and toddlers develop the ability to coordinate basic hand and eye movements by using their hands and adjusting their reach and grasp to involve objects or toys in their play. In toddlerhood, children typically develop the ability to use a pincer grasp with thumb and fingers to manipulate small objects, and this skill becomes more refined and controlled as children age.

As preschoolers, children begin to demonstrate greater stability, control, and hand-eye coordination as they interact with objects, including by stacking blocks or tracing a shape or image. By the end of preschool, children are typically able to coordinate their hand and eye movements to complete complex tasks, such as connecting dots in a line, using scissors to cut out shapes, painting a picture, or buttoning a shirt. Children may also be able to copy an image without tracing. These skills, which require integrating perceptual and motor information, have been found to predict children's mathematics development.

Foundational Conditions for Educators

In order for early learning programs to prepare children for academic success, early educators need to be prepared and supported to excel in the complex work of providing high-quality early learning experiences. To be effective, research suggests that educators need a foundation of five supportive conditions. These conditions are critical to educators' ability to engage in nurturing, responsive, and intentional interactions with children and provide the individualized support necessary for all children to learn. These conditions are:

1. Facilitative leadership
2. Competitive compensation and benefits
3. Job-embedded professional development
4. Paid planning and collaboration time
5. Emotionally supportive environment

Unfortunately, many of these foundational conditions are not yet in place for most early educators. Facilitative leaders put into place processes, policies, and practices that build and nurture a positive, supportive environment and community for and among staff members.[22] In order for early educators to be effective, they also need competitive compensation and benefits. At present, compensation for almost all early education staff is extremely low. In California, more than half of early educators rely on public assistance to support their own families.[23] Poor compensation and the concomitant stress and mental health problems associated with insufficient income undermine educators' effectiveness.[24] With relatively low standards for preparation and lack of investment in professional learning, including little or no paid professional learning, planning, and collaboration time, the odds are stacked against early educators achieving the competencies outlined below.

Facilitative leaders put into place processes, policies, and practices that build and nurture a positive, supportive environment and community for and among staff members.

Until working conditions improve, many of the described competencies will remain aspirational. Supportive administration and policies at the federal, state, local, and program levels that allocate resources to empower early educators are critical to providing high-quality learning experiences for all children.[25] Local leaders, including program directors, principals, and county administrators overseeing early learning programs, can enact policies and implement procedures to ensure that the foundational conditions for early educators listed above are in place.

Essential Educator Competencies

Throughout this framework, we define *essential educator competencies* as those competencies that researchers and practitioners have identified as critical to providing experiences that promote the development of the essential child skills through intentional learning activities and play. The competencies included in this framework stem from an analysis of the research and guidance that outline essential skills for educators of infants, toddlers, and preschoolers (see Appendix A). We identified five key competency areas, which were common across the documents we reviewed:

1. Developmentally appropriate practice and environments
2. Observation and assessment of development and learning
3. Individualized supports and inclusion-based practices
4. Family support and partnership
5. Continuous improvement and professionalism

Although this framework includes five discrete areas of early educator competencies that are each critical to supporting the development of children's essential skills, it is important to understand that these competencies are interrelated. Educators must consistently cultivate their knowledge of developmentally appropriate practice, family and cultural contexts, and effective assessment in order to effectively support and individualize learning for every child.

The competencies described in this framework are applicable to educators who care for children across the spectrum of early childhood settings. Where relevant, we provide examples of how the instantiation of a competency may look different depending upon the age and developmental stage of the children. Additionally, these competencies do not represent the full scope of requirements for early educators, such as licensing or certification requirements. Rather, the competencies described here are those we have identified as closely tied to the early learning and development of young children.

Developmentally Appropriate Practice and Environments

Developmentally appropriate practice and environments encompass the way in which educators establish positive relationships with and offer effective learning opportunities to all children. Effective early educators are able to design developmentally appropriate, safe, and engaging learning environments; embed learning into everyday routines; and implement a balance of child-initiated and teacher-guided playful activities. These educators must be able to consistently attend to the needs of the children in their care and employ their knowledge of child development and pedagogy to create and manage an early learning space that supports and appropriately challenges every child.

Effective early educators are able to design developmentally appropriate, safe, and engaging learning environments; embed learning into everyday routines; and implement a balance of child-initiated and teacher-guided playful activities.

The foundation of developmentally appropriate practice is an educator's understanding of child development and ability to construct effective early learning activities that support each child's acquisition of the essential skills. Developmentally appropriate practice is also culturally and linguistically responsive. Effective practice is grounded in the science of learning and development and in what is known about effective early education.[26] Research has confirmed that nurturing relationships with caring adults support children's learning and development across all areas of essential child skills and that exploration and engagement through play-based experiences maximize young children's learning.[27] Furthermore, effective educators understand that children's behavior should be considered in the cultural context in which a child develops based upon knowledge of family routines and practices,[28] and that the physical space and the design of the early learning setting impact children's learning and behavior. Because most early educators will encounter young children who have experienced chronic stress and trauma, it is imperative that early childhood settings be safe, trauma-sensitive spaces in which educators support children to develop a sense of trust, safety, and positive self-identity.[29]

Know and use developmentally appropriate practices to support children's learning across child skills

Educators need to understand the full scope and sequence of development and learning across early childhood, and to have the practical, pedagogical skills to be able to promote children's social-emotional, cognitive, language and literacy, mathematical and scientific reasoning, and physical development. Effective educators are able to use their understanding of child development and learning to appropriately guide and scaffold progress for all children, including those whose progress falls outside typical developmental trajectories.

Each moment that children are engaging with their environment and the people within that environment is an opportunity to expand and elaborate on their curiosity to support the acquisition of these skills. As such, early educators must learn how to harness the value of play and be intentional in their efforts to actively guide children's learning. Effective early educators are able to understand where each child is on his or her individual learning trajectory and apply that knowledge to intentionally scaffold experiences that facilitate that child's progress. To do this, effective educators encourage playful exploration, experimentation, and conversation in the context of positive relationships. These educators use their knowledge of child development to set purposeful learning goals and provide intentional play-based activities that offer the right amount of practice and challenge for each child to guide and scaffold his or her learning to reach those goals.[30] Educators who have mastered intentional, developmentally appropriate practice also demonstrate the flexibility to leverage effective teaching strategies to respond to environments and learning opportunities that emerge from children's spontaneous interests and play.

Playful, Integrated Learning in Action

Developmentally appropriate practice is easiest to understand when viewed through the lens of the early learning setting. Effective educators can turn children's interest in and curiosity about their own environments into engaging, playful opportunities to scaffold skill development across multiple areas. For example, the teachers in the vignette below leveraged children's interest in snails to offer myriad learning activities for their students.

> After observing the children's interest in snails outside, the teachers brought in snails for the children to examine on trays in the science area. Many children went over to see them. Some simply watched, while others held a snail. Whether watching or holding a snail, each child bubbled with curiosity.
>
> Observing the children's curiosity, the teachers decided that the snails might serve as a common interest for children to explore over time, with many possibilities for learning language, math, science, social skills, art, and literacy. Exploring snails offered potential for tapping into many of the children's emerging skills and concepts with increasing complexity over time. The teachers thought of the snails as a ready science investigation. The children would come to know one of the creatures that live in their play yard. The teachers also envisioned possibilities for children's social learning while exploring the snails.
>
> Most of the three-year-olds were new to the program and were adjusting to the many new and different faces, languages, and expectations for behavior. The teachers thought that exploring snails would offer experiences supportive of children's progress in various developmental areas. There would be possibilities for discussing how to treat living creatures in respectful ways, conversations with the children about how to care for snails and being gentle with creatures and also with each other. Caring for the snails might spark much discussion in small groups, a perfect context for children to build new vocabulary and language skills, notice cause-and-effect connections, solve problems, engage in counting and comparing, draw shapes, and use print to capture ideas. The teachers also wondered about how children might weave pretend play and stories into their exploration of snails.[31]

The teachers in this classroom planned their investigation into snails with intentionality. They took advantage of opportunities to develop coherent learning activities that would support scientific inquiry and observation skills, literacy and mathematics development, fine motor development, and social and emotional learning.

Understand and guide children's social-emotional development. Educators need to understand the full progression of and specific strategies to support children's social-emotional skill development, including that trusting relationships build the foundation of all early learning.[32]

Educators must also understand the relationship of social-emotional development to other areas. For instance, effective educators understand that children's ability to manage their emotions influences their learning because negative emotions can reduce the capacity of the brain to process and retain information. Effective educators are able to develop trusting, nurturing relationships with each and every child.[33] They also support the development of positive behavioral and emotional self-regulatory skills to ensure all children are ready and able to engage in the learning environment. For example, effective educators help children identify their own emotions by acknowledging when

children feel sad, frustrated, or excited and offer strategies for children to cope with their feelings, establish equilibrium, and return to engaging with the learning environment.[34]

Understand and guide children's cognitive development. Educators need knowledge of the full progression of cognitive development and specific strategies to promote it, as well as its relationship to development in other areas. For instance, inhibitory control is crucial to supporting positive peer interactions. Effective educators are able to use this knowledge to support and scaffold children's cognitive development, including their memory, imitation and symbolic play, and executive functioning skills. They provide rich learning opportunities that build on children's natural interest in and curiosity about the world around them.[35] For example, an effective educator might notice children's interest in space and model symbolic play by using a box as a helmet, asking the children what they think he or she might see on Mars and encouraging them to build a spaceship from toys in the room.

Understand and guide children's language and literacy development. Educators need knowledge of the full progression of language and literacy development in both monolingual and multilingual young children and specific strategies to promote it. Educators also need to understand how language and literacy development relates to and can be affected by child development in other areas. For example, languages are symbolic systems, and symbolic thinking is foundational for mathematical reasoning.[36]

Effective educators are able to use their developmental and pedagogical knowledge to support and scaffold children's development, including their communication, language, phonological awareness, print concept, reading and comprehension, and writing skills. For example, effective educators provide a language-rich learning setting by reading, singing, and telling stories to children. They understand that from infancy, children are building communication skills and absorbing language from every interaction. They take turns in conversations with children, and they model critical listening skills by responding to and expanding upon children's gestures, verbalizations, and ideas to scaffold developmental progress.[37]

Conversations With Young Children

Effective educators understand that conversations with young children are a critical vehicle for learning. These educators talk with babies and toddlers throughout the day before they are able to communicate verbally. For example, they may ask an infant a question during a diaper change, such as "Doesn't that feel better, to be dry and clean?" and pause to allow the child to respond with a coo or gesture before continuing the conversation with "I think it does."

When educators read with young children, it is critical that they know how to engage children in the content of the book and activate their imaginations. For example, an educator reading a book about a farm might ask the children, "What do you see in this picture?" If the children say that they see a cow, an effective educator will follow up and ask the children what color the cow is, what sound a cow makes, whether they have ever seen a cow in real life, or whether they know what cows make that children drink. If a child says that he or she sees a spaceship, an effective educator does not dismiss the observation. Instead, the educator asks questions about the spaceship and asks the children about who is in the spaceship and what a spaceship would be doing on a farm. An effective educator would applaud the child's creativity but would also ask follow-up questions about what happens on a farm and who works there, as well as where astronauts work and where spaceships travel, to support the child's understanding of farms as well as spaceships.

Understand and guide children's mathematical and scientific reasoning. Educators need knowledge of the full progression of children's emerging mathematical and scientific reasoning skills and specific strategies to promote them, as well as their relationship to development in other areas. Effective educators are able to use this developmental and pedagogical knowledge to support and scaffold children's reasoning skills specific to mathematical and scientific concepts, including number sense, algebraic thinking, geometric thinking, spatial relationships, measurement, exploration and discovery, and scientific inquiry. For example, effective educators provide opportunities for children to play and experiment with objects of different sizes or compare the number of leaves or lengths of branches gathered from outside, either independently or with guidance and support from adults.[38]

Embedding Learning Into Everyday Routines

Effective educators take every opportunity to support children as they develop essential skills. For example, the teacher in the vignette below recognizes an opportunity to practice one-to-one correspondence and purposeful counting during a basic routine of setting the table for lunchtime. The teacher gives the child the opportunity to demonstrate her skills and then provides appropriate guidance to scaffold her learning.

> Mr. Raj asks, "Do we have one cup next to every plate?" Amy checks and says, "No, this one does not have one, this one does not have one, and this one and this one. We need more." Mr. Raj asks, "How many more do we need?" "Four … uh … no, maybe six. Let me count, one, two, three, four, five, six." Mr. Raj notices that she counted one of the plates twice and says to Amy, "Let's count again, slowly." He points to the plates that have no cups next to them and counts them one at a time with Amy. "One, two, three, four, five." Amy repeats, "Five." "Yes. We need five more cups," Mr. Raj answered. Mr. Raj helps Amy get five more cups and asks Amy, "Can you make sure we have one cup next to every plate?"[39]

Mr. Raj has just taught Amy about one-to-one correspondence—a critical skill in the development of mathematical reasoning—and confirmed and reinforced her ability to count carefully. By coaching her how to complete the task of table setting without ever correcting her directly or telling her she was wrong, Mr. Raj also reinforced her competence and confidence in a way that is likely to carry over into other tasks.

Understand and guide children's physical development. Educators need knowledge of the full progression of physical and motor skills and specific strategies to promote them. Educators also need to understand how physical development is related to other areas of development, such as the connection between motor development and cognitive or social-emotional development. Effective educators are able to use this knowledge to promote and scaffold children's physical development, including gross motor and fine motor skills. For example, effective educators provide ample opportunities for children to practice their gross motor and fine motor skills by ensuring children have access to open spaces and a variety of play materials, including tricycles and large play structures, blocks, and beads, as determined by the age of the children in their care.[40]

Effectively construct and manage physically and emotionally supportive learning environments and activities

Educators should understand the impact of the environment on the development, learning, and behavior of children. Effective educators are able to design and manage indoor and outdoor environments to match the age and cultural and individual needs of children. Specifically, effective educators ensure that the learning setting is developmentally appropriate and supports effective group participation. These educators implement age-appropriate and predictable schedules and routines; provide smooth and efficient transitions; model and coach children about the rationale for expected behavior; and reinforce constructive behavior.[41]

Effective educators also promote positive interactions by strategically designing learning centers and rotating materials to support cooperation, exploration, and playful learning. Finally, these educators design spaces to support children in understanding expectations and how to meet them. For example, effective educators construct their learning spaces to avoid runways, where children can run indoors without encountering a physical barrier, and ensure options for children who are interested in independent play or quiet time. These educators also understand that young children respond best to transitions when they are given multiple transition warnings and are prepared for the next activity.[42]

Observation and Assessment of Development and Learning

Observation and assessment of development and learning concern an early educator's ability to use observation and assessment to identify typical and atypical development, including using informal observations of child behavior, milestones, and learning progressions to support individualized instruction. Strong foundational knowledge of child development, culturally responsive practice, and trauma-informed practice is critical for educators to be able to appropriately select, administer, interpret, and use observation and assessment data. As such, educators need to be able to both reflect on this information in the context of the child's cultural and linguistic background and communicate their findings, concerns, and plans with families in ways that are productive, sensitive, and confidential.

Strong foundational knowledge of child development, culturally responsive practice, and trauma-informed practice is critical for educators to be able to appropriately select, administer, interpret, and use observation and assessment data.

To provide effective learning opportunities, educators need space and time to *conduct* regular observations and assessments of development and learning of the children in their care. They must also be equipped to *use* the information they gather to make adjustments in their practice, individualize instruction, and identify the educational resources children and their families need.

Conduct regular observations and assessments and use results to individualize learning for all children

Effective educators are able to identify, select, and use observation techniques and assessments to understand the learning progression and trajectory of each child. Effective educators practice regular, formative assessments as well as continuous documentation and reflection for all children to ensure a full view of children's strengths and needs. For infants and toddlers, these educators assess primarily through observation. Effective educators are able to use information gleaned about each child's personal strengths, abilities, disposition, interests, and language experiences from observation of children's play and assessment to set goals and provide learning activities that are intentionally designed to scaffold the developmental progress of children in their care. For example, an educator might provide additional intentional play-based opportunities for fine motor development by introducing new materials that will engage their fine motor skills to address assessments that suggest one or more children in their care is struggling in this area. They use their knowledge of typical development and standards to identify children who are lagging and may need additional support.

Individualized Learning in Small-Group Activities

Early educators spend much of their time engaging with young children, and effective educators are able to actively observe children's development through the day, week, and year during play and other activities. Educators need supports that give them the time and space to document their observations and plan how to use the information to individualize learning activities. Under the right conditions, an effective educator may observe that several children in his or her care are struggling with their fine motor development and, in response, plan to provide additional opportunities for all children to practice their fine motor skills. For example, the educator might create a beading center or provide a beading activity with beads of various shapes and sizes. This educator will take special note of whether the children who need additional fine motor practice are utilizing the center or participating in the activity and will use multiple strategies to engage children who are not, including providing one-on-one attention to each child to scaffold the beading task.

Utilize observation and assessment techniques sensitive to children's linguistic and family context

In order to appropriately observe, assess, and interpret the behavior of children from non-English-speaking homes, educators should use observational techniques that demonstrate their understanding of dual language development and acknowledge the interactive nature of language and skill acquisition in other areas for these children. For example, effective educators understand that administering formative assessments to DLLs in both English and their home language is the best way to ensure a full and accurate picture of their development and skill in most child skill areas, not just language and literacy. In addition, it is essential that effective educators understand the language learning trajectory of DLLs and use conversations with parents to acquire knowledge about the cultural priorities of families.

Consider the impact of the home context and trauma on the observation and assessment of development and learning

Educators should be equipped to recognize the impact of a child's home context on his or her development, particularly experiences of trauma and adverse childhood experiences.[43] Effective educators take these factors into consideration when selecting, administering, and interpreting observations and assessments. For example, because trauma changes the architecture of a developing child's brain and physiology, children may have difficulty regulating their emotions and coping with stressful situations. Effective early educators administer assessments in a low-stress and naturalistic setting to ensure children who have experienced trauma, in particular, are able to demonstrate their skills. Because trauma and toxic stress have physical consequences that can inhibit learning,[44] educators need to carefully observe children's behavior, identify and avoid triggers, critically analyze the meaning of a child's behavior, and use their knowledge of the child's circumstances to inform individualization and behavior plans for children who have persistent challenging behaviors.[45]

Individualized Supports and Inclusion-Based Practices

Individualized supports and inclusion-based practices capture the essential competencies necessary for educators to tailor their approach, instructional practices and learning activities, and curricular content to build upon each child's strengths and needs.

Provide safe and inclusive learning environments and activities

Educators should be able to provide an inclusive learning environment that ensures access and participation for every child.[46] Effective educators provide a wide range of activities and environments to support access to learning activities for every child. These educators use a range of instructional approaches to promote engagement and a sense of belonging to ensure participation. Educators should also be skilled in trauma-informed practice to ensure children experience the early learning environment as a safe and supportive space. Furthermore, effective educators should be able to recognize when external support or services would be beneficial and know how to request or make referrals to available community services that will ensure all children can be successful and thrive. They are also aware of the legal requirements and policies that pertain to exceptional children and are able to share information with families and community members.

Educators should be able to provide an inclusive learning environment that ensures access and participation for every child.

Individualize learning experiences to meet children's specific needs

Educators should use a universal design for learning (UDL)[47] approach to design learning experiences and prepare the learning environment to be flexible to meet the needs of all learners. Effective educators are also able to apply developmental knowledge to engage children in individualized learning experiences based on assessment data about where children are in their skill development and learning progressions. For children with special assets, including DLLs

and children exceeding developmental expectations for their age, educators should also be able to implement instructional strategies that are culturally or linguistically responsive and provide opportunities for children to continue learning beyond the curricular parameters for their age.

Use best practices to support DLLs in all languages. Effective educators ground instructional methods in dual-language development practices that are evidence-based and promote bilingualism and biliteracy through a range of language and literacy strategies. They also capitalize on the cognitive assets of children learning multiple languages, including increased cognitive flexibility. These educators recognize that skill development may present differently in DLLs, but that this difference does not typically represent a delay.

For example, the educators understand that a bilingual child may have a small vocabulary in both languages when considered separately, but an age-appropriate vocabulary when both languages are considered. Effective educators use pedagogical strategies and knowledge of children's home language to support second language development and to recognize the negative psychological implications of home language loss for both children and parents.[48] In the infant and toddler years, effective educators focus on supporting children's home language development in order to lay the foundation for second language development in preschool and beyond. Although it is ideal for educators to be able to fluently communicate in the child's home language, effective educators are able to support children in languages in which they are not fluent. For instance, an effective educator may weave the child's language throughout the learning environment with books, labels, and materials in the child's home language and can also learn essential words and phrases to use with the child.

Use best practices to support full inclusion for children with special needs. Educators should be able to employ best practices to support children with special needs so that, whenever possible, they can engage in learning alongside their typically developing peers. Whether these needs are articulated through an Individualized Family Service Plan (IFSP), Individualized Education Plan (IEP), or 504 plan, effective early educators are able to identify and make every effort to obtain the resources that they need to provide specific learning or behavioral supports in collaboration with other professionals and the child's family. When educators identify that a child has special needs, they must know how to collaborate with or refer parents to community services, if available, to access the proper resources and accommodations and ensure learning opportunities are structured in a way that will best serve that child.

Use best practices to support children who exceed developmental expectations for their age. Effective educators are familiar with the developmental standards beyond the age level of the children in their programs and are able to offer educational opportunities that allow the children to continue beyond age-level expectations if they are ready. Educators should have knowledge of child development extending from birth through and beyond age 5. Effective educators are able to use this knowledge alongside assessment data to provide individualized instruction and to support continued learning regardless of where children's skills fall within a developmental progression.

Use best practices to support the development of children who experience trauma and adverse childhood experiences. Educators must understand the impact of trauma and adverse childhood experiences in child development and be able to take this information into account when designing the learning environment and curriculum. Effective early educators are aware of

the impact of chronic and unpredictable stress on developing brains and implement strategies and design the learning environment to be trauma-informed and developmentally supportive for all children. This includes providing consistent routines that mitigate stress, and building nurturing, responsive relationships with children to ensure children feel safe and ready to learn.[49] Each child reacts to trauma differently, but it is common, for instance, for children exposed to trauma to display heightened aggression and impulsivity. Effective educators recognize that children experiencing trauma need extra support to develop the skills they need to manage strong emotions, such as sensory awareness, emotional understanding, and appropriate coping strategies.[50]

Work as a team to provide individualized supports

Educators must be able to collaborate with a multidisciplinary team and the family to develop and implement individualized supports and shared expectations for children. Effective educators know and understand how evidence-based supports and services are best provided, and they ensure that any practitioners coming into the learning setting understand the environment and how to work together to foster the child's learning and development.[51]

Family Support and Partnership

Family support and partnership capture educators' ability to engage and partner with families effectively, as well as the skills and knowledge educators need to be able to support culturally and linguistically diverse families.

Families are the center of a child's life before, during, and after their engagement with early learning programs; therefore, effective educators must be able to communicate effectively with families about children's progress and needs and collaborate with them to ensure continuity between the familial and early learning context. Early educators have a critical role to play in ensuring families have the resources they need to support and extend their child's learning at home, from infancy into preschool and beyond.

Initiate and engage in regular and responsive communication with families

Effective early educators view families as resources and partners in optimally supporting each child's learning and development.

Effective early educators view families as resources and partners in optimally supporting each child's learning and development. Educators should regularly initiate and communicate with families in a way that is respectful and responsive to each family's communication style and needs. Effective educators maintain confidentiality and resolve conflicts with sensitivity, support, and timeliness. For example, effective educators are available to parents during drop-off and pickup and schedule regular conversations with parents to learn from and share observations of each child's strengths and challenges to support learning.

Communicate with and prepare families when children face transitions. Educators should regularly communicate practices and accommodations to meet specific needs of children with special needs to their families. Effective educators are able to prepare parents and children for transitions between classrooms or early learning settings and into elementary school. These educators are equipped with the tools they need to support parents as they advocate for their children's needs and to educate parents on their rights under the law (e.g., the Individuals with Disabilities Education Act (IDEA), the Americans with Disabilities Act (ADA), and state law).

Collaborate with families to strengthen the home–school connection

Educators utilize effective strategies for collaborating with families to ensure consistency between school and home. Consistency across the home and early learning environments facilitates children's ability to negotiate both contexts and extend learning opportunities. This is particularly important for children whose home language and culture are different from the early learning setting. Effective educators are able to connect families to resources in the community (such as the local library) and share learning techniques that help parents embed learning into their everyday interactions with their children. For infants and toddlers in particular, educators learn from families about how children's basic needs are met at home and partner with families to establish routines and consistency across home and care settings for sleeping, feeding, and toileting.

Support families who are coping with adverse experiences and trauma. Effective educators listen to and understand sources of continuous trauma and are able to identify when children's home lives are unsafe. Educators should be able to build a sense of trust with children and connect parents with resources to cope with adverse experiences and trauma and that will support children remaining physically and emotionally safe.

Build culturally and linguistically responsive relationships with families. Educators should be able to communicate with families in their home language (or have access to translation resources or tools to do so). Effective educators know how to approach families with a strength-based and culturally sensitive lens that respects and supports families' cultural differences and practices to build strong, supportive relationships. These educators understand and respect the dynamic of each family and employ approaches to partner with families to meet children's needs within their cultural contexts. For instance, one effective practice to ensure cultural relevance in the early learning setting, and strengthen the continuity between home and school, is for educators to learn how to gather and use the funds of knowledge from families of their fundamental cultural practices to embed culturally responsive activities into their daily routines with children.[52] Embedding these activities into their interactions with children honors and respects the abundant knowledge that families can offer and educators can learn to use to promote children's development.[53]

Continuous Improvement and Professionalism

The competencies related to continuous improvement and professionalism recognize that early educators are professionals and therefore should engage in best practices in professional development to support the continuous refinement of their craft and encourage their elevation to leadership positions in the field if desired.[54]

For early educators to excel, they need the ability and opportunity to engage in reflection, develop and use professional development plans, participate in professional learning, develop collaborative leadership skills, and maintain professional and ethical standards. Effective educators can improve both their individual practice and the practice of the early childhood programs in which they work by engaging in cycles of inquiry that promote professionalism and continuous improvement.

For early educators to excel, they need the ability and opportunity to engage in reflection, develop professional development plans, participate in professional learning, develop collaborative leadership skills, and maintain professional and ethical standards.

Engage in reflection of beliefs, mindsets, and biases

Educators should have the knowledge and space to practice both ongoing self-reflection and reflection with others (e.g., peers, coaches, mentors, or supervisors). This includes reflection of their beliefs, mindsets, and biases about learning and development; relationships with children, families, and colleagues they work with; and their own well-being to identify areas for improvement and growth in order to effectively meet the needs of diverse children. Effective educators seek out input and resources to improve their practice and support their acquisition and refinement of the essential competencies.

Construct and use professional development plans to improve practice

In collaboration with their supervisors, educators should be able to develop professional development plans and participate in professional learning activities, including job-embedded and academic learning activities, aligned with their professional goals. Educators should be able to access professional learning opportunities that are aligned with these plans, are evidence-based,[55] and are relevant to their community's context. Finally, effective educators understand the policies and legislation at the local, state, and national levels that impact their work and their community, and they are empowered to advocate for the well-being of the children and families they serve.

Develop collaborative leadership skills

Educators should engage in activities to develop their collaborative leadership practices, including the establishment of relationships of mutual caring and respect. All educators are leaders, and effective educators are equipped with the skills they need to work with and, as appropriate, manage the other adults (e.g., other educators, including aides, and volunteers) in the learning setting. Effective educators recognize their own strengths and the strengths of others and are able to think strategically about how to capitalize on the assets of every adult to enhance the learning experiences available to children.

Leading to Promote Learning

Every day, early educators interact with myriad adults within and around the early learning setting. Effective educators recognize the funds of knowledge these adults bring into the classroom and create learning opportunities that these adults are uniquely positioned to support. For example, an effective educator will notice if a parent volunteer is particularly skilled at helping shy children engage with their peers and will highlight this skill in discussion with the volunteer to encourage him to focus his attention on children the educator has noticed are more reticent in social situations. Likewise, an effective educator is able to communicate with her center director or school principal about her goals for children and solicit the supports she requires to meet children's needs.

Maintain professional and ethical standards

Educators should have knowledge of and the ability to uphold professional guidelines and ethical standards, particularly because young children are at such a critical yet vulnerable point in their development and learning and are unable to articulate their own rights and needs.[56] Effective educators maintain high standards of confidentiality, sensitivity, and respect for children, families, and colleagues in their interactions and communications. Their practices reflect knowledge of legal and ethical issues, including current professional practices related to privacy, reporting child abuse and neglect, health and safety practices, and the rights of children with developmental delays and disabilities.[57]

Conclusion

The research demonstrates that the essential skills children need in order to succeed in school span the areas of social-emotional, cognitive, language and literacy, mathematical and scientific reasoning, and physical development. It is also clear that early educators need to acquire and work to refine essential competencies related to developmentally appropriate practices and environments, family support and partnership, observation and assessment of development and learning, individualized supports and inclusion-based practices, and continuous improvement and professionalism in order to fulfill the promise of early education.

Child development is complex, and providing high-quality early learning experiences is complex work. Although not every state and local policymaker, administrator, and leader with influence over early childhood programs needs to understand every nuance of these complex concepts, it is critical that every decision-maker maintain a basic understanding of both the essential child skills and the essential educator competencies. The essential child skills are critical because they undergird the goals and objectives that programs can set for children's learning and preparation for school. The essential educator competencies are critical so that decision-makers understand the stakes involved in providing a context that supports early educators to excel. This understanding is fundamental to supporting leaders to make informed decisions about how to ensure that educators have the resources they need to ensure every child enters school ready to thrive.

Appendix A: Resources

Policy Resources

- The Building an Early Learning System That Works: Next Steps for California report and brief from the Learning Policy Institute provides California-specific policy and practice recommendations to support early educators and facilitate collaboration among educators and the community.
- The Getting Down to Facts II: Early Childhood Education in California* report reviews and analyzes California policies that are designed to support early learning in children from birth through 5 years of age.
- Indispensables for Quality Pre-K* from New America articulates simple statements of three practices and three policies that researchers, program leaders, and advocates agree are indispensable for building preschool programs that lead children to thrive in kindergarten and beyond.
- From the Institute of Medicine and the National Research Council, Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation* report examines the science of development and current capacities and practices of the workforce. Based on this, the report then provides recommendations for the government agencies and other funders who support and oversee early care and education systems to improve the quality of professional practice and the practice environment for care and education professionals.
- The Understanding Many Languages: Preparing Early Educators to Teach Dual Language Learners* brief from the Center for the Study of Child Care Employment examines how higher education degree programs prepare early care and education professionals to address the needs of dual language learners and offers policy recommendations.

California-Specific Resources on Child Skills and Educator Practices

- The California Child Development Permit: Candidate Performance Expectations and Preparation Program Guidelines* by the Commission on Teacher Credentialing are intended to describe the expected competencies for a well-prepared beginning-level early childhood professional at the point of initial licensure for a particular permit. The commission also provides guidelines to focus the preparation of those who teach, mentor, lead, and assist in California's subsidized Child Care and Development Programs.
- The California Early Childhood Educator Competencies* give comprehensive descriptions of the knowledge, skills, and dispositions that early childhood educators need to support young children's learning and development across program types.
- The California Infant/Toddler Learning & Development Foundations* are intended to provide a description of the competencies that infants and toddlers typically attain in the major developmental domains in the first three years of life when provided with high-quality early care and education. The Infant/Toddler Learning & Development Program

*This document contributed to the analysis for the framework.

Guidelines* were created as a companion resource to provide recommendations for program policies and practices to strengthen programs that educate and care for infants and toddlers.

- The California Preschool Learning Foundations* provide a comprehensive understanding of the wide range of knowledge and skills that preschool children can typically learn when provided with the kinds of interaction, instruction, and environments that research has shown promote early learning and development. The companion resource, the California Preschool Curriculum Frameworks, provides guidance, vignettes, and examples of teachable moments to support young children's specific skill areas.

Additional Resources on Child Skills and Educator Practices

- The Center on the Social and Emotional Foundations for Early Learning *What Works* Briefs series provides resources and strategies for modifying the education environment to prevent challenging behaviors and promote positive group participation.
- The Centers for Disease Control and Prevention ACEs web page includes information and resources to understand, recognize, and minimize the effects of adverse childhood experiences (ACEs).
- The Creating Trauma-Sensitive Classrooms article provides resources and guidance on trauma-sensitive practices for educators working with young children.
- The Common Early Learning and Development Standards Analysis for the North Carolina EAG Consortium—Summary Report* provides a national summary and comparison of the ways in which states have organized their early learning and development standards.
- The Early Learning Lab's 5 Priority Practices for Parents, Teachers, and Caregivers* offers five simple evidence-based practices that any educator or caregiver can use to support children's learning and growth.
- The Edutopia article Starting the Day With a Calming Routine describes five exercises that can be used to transition into the day with young children who have experienced trauma.
- The Head Start Early Learning Outcomes Framework: Ages Birth to Five* is designed to show the continuum of learning for infants, toddlers, and preschoolers. The accompanying Head Start Early Learning Outcomes Framework Effective Practice Guides offer information about domain-specific teaching practices that support children's progression within the framework's developmental domains.
- The Head Start Early Childhood Learning and Knowledge Center Funds of Knowledge video and handout explains the concept of funds of knowledge and how to gather and use the funds of knowledge of families and educators in practice.
- The National Association for the Education of Young Children (NAEYC) Code of Ethical Conduct and Statement of Commitment provides guidelines, core values, and ethical responsibilities specific to professionals that work with young children.

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*This document contributed to the analysis for the framework.

- The NAEYC Professional Standards and Competencies for Early Childhood Educators* are designed to be a core set of standards to inform and guide preparation and professional development of early childhood education professionals, across a range of roles and settings.
- The Preventing Suspensions and Expulsions in Early Childhood Settings: A Program Leader's Guide to Supporting All Children's Success provides practical guidance and resources on how to train staff on cultural awareness and implicit biases, with a focus on program policies and practices to address the root causes of early childhood suspensions and expulsions.
- The UNC Frank Porter Graham Child Development Institute Early Childhood Inclusion web page has compiled a list of resources on inclusion in early childhood settings, including how to plan and facilitate inclusion.

*This document contributed to the analysis for the framework.

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