


## **Fostering Cognitive Development**

Accomplished early childhood teachers understand that early childhood is a critical period in cognitive development. Teachers understand how children are thinking at a given phase in their development and know how to help them move to the next level of reasoning. Teachers know that whereas most young children draw upon all of their senses to learn, some children are primarily visual learners, other children learn best through auditory means, and still others can best process information when it is presented in multiple modalities. Teachers use their knowledge of individual children's learning styles to create learning experiences that are accessible to each child. In the case of a child who has difficulty maintaining attention during cognitive tasks, the teacher might intersperse cognitive tasks with periods of intense physical activity; whereas with children who learn cognitively best in a consistently quiet, still environment, the accomplished teacher would take a different approach.

Accomplished early childhood generalists recognize the foundational nature of brain development that takes place in the early years, and they are particularly aware of the degree of change that occurs in children prior to age three. Teachers understand that the brain is a dynamic organ that is shaped by experience; learning not only causes the growth of neurons, but also alters the physical structure and organization of the brain. Teachers recognize that research on the brain, mind, and human cognition is constantly progressing, and they cautiously strive to understand how such research can best inform educational actions. Accomplished teachers apply strategies and information from confirmed brain research to heighten the likelihood of children's success. For example, they build on children's prior knowledge and readiness and, recognizing the pivotal importance of a child's ability to attend to learning, they plan a variety of ways to help young children focus their attention and increase its duration.

Accomplished early childhood teachers know that cognitive development includes the thought processes of memory, reasoning, decision-making, problem-solving, and creative thinking. Teachers know that children's ability to acquire, apply, analyze, and generalize information develops through experiences over time. Teachers are keenly aware of the influence that prior knowledge and experiences have on children's cognitive development, and they do not assume that all children share similar background experiences. For example, although nursery rhymes have long been a useful tool for developing children's phonological awareness and fluency in reading, teachers do not assume that all children have become familiar with nursery rhymes at home. Accomplished teachers assess children's prior knowledge,

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build upon the skills children bring to school,<sup>1</sup> and facilitate experiences that foster cognitive development.


Accomplished early childhood teachers apply knowledge of the influences that affect cognitive development when working with young children. They know that factors such as the home environment, heredity, health issues, culture and language, nutrition, and the larger community can affect a child's cognitive development. Teachers know that some negative influences can be ameliorated by providing certain experiences while others cannot. Even though some factors are beyond the teacher's control, accomplished early childhood generalists differentiate and individualize experiences to help all children move forward and achieve their fullest potential.

Accomplished early childhood teachers know that purposeful teaching builds on young children's prior knowledge and experiences, natural curiosity, imagination, and creativity to help them understand concepts about a range of disciplines. Teachers provide adequate time, rich materials and resources, and rigorous and appropriate expectations to support children's learning. Under teachers' guidance, young children learn to recognize patterns, understand relationships, construct complex ideas, and establish connections among disciplines. Teachers know that metacognition is within the reach of young children and is crucial to processing and making sense of information. Teachers help children plan activities, carry them out, and then reflect on them. Accomplished teachers choose tasks that build on the principles of inquiry in order to help children make predictions, experiment, synthesize information, reach conclusions, and make generalizations. Inquiry-based activities encourage children's autonomy and sense of responsibility for their own learning.

Accomplished early childhood teachers understand that young children construct knowledge through playful exploration and then become ready to focus their attention on specific dimensions of materials. For example, three-year-olds will spontaneously explore a given object set before them, whereas eight-year-olds are more likely to approach the object with a conscious plan for exploration. Knowing that brain research suggests the use of patterning to help children learn, teachers give children ample practice time to comprehend challenging material. Young children learn to develop cognitive strategies such as organizing, reasoning, explaining, and reflecting when they can share their thinking with other children, teachers, and parents. Accomplished teachers use questions and feedback during social interactions with children so they can reflect and make sense of their learning.

Accomplished early childhood teachers value the social aspects of young children's construction of knowledge. Guided by their knowledge that initially young children can do more in collaboration with others than they can do alone, teachers intentionally plan opportunities for children to work together, as in center time and group work, and set realistic expectations for young children's independent

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performance. Teachers also know the value of teacher support, interaction with older children, and appropriate scaffolding in young children's knowledge construction.

Accomplished early childhood teachers solicit the wisdom of the classroom community and build upon it. They nurture children's respect for one another's ideas. Teachers create a psychologically safe climate for children's learning by helping children realize that making mistakes is part of learning. Accomplished teachers orchestrate an environment in which young children build the confidence and competence that will prepare them for a life of acquiring and applying knowledge.