

DOMAIN 1: APPROACHES TO LEARNING AND COGNITIVE DEVELOPMENT

INTRODUCTION

The **Approaches to Learning and Cognitive Development** domain covers the inclinations, dispositions, attitudes, habits, and styles that reflect the diverse ways that children learn. This domain is about how children construct meaning and how children position themselves for learning, rather than how children acquire skills.

The developers of the *Idaho Early Learning eGuidelines* chose to link approaches to learning with cognitive development. Compelling research in cognitive and brain development is expanding our understanding about how and when the complexities of thinking and learning develop. The adult work is to support children in this process of active self-organization in thinking and learning.

Domain 1 offers a span of development from birth through third grade where the ripples of cognitive development are notable. The Idaho K-12 Standards do not specifically address approaches to learning and cognition, but rather address knowledge and skills from a discipline specific view.

The expansion of the age ranges to 3rd grade for the goals of Domain 1: Approaches to Learning and Cognitive Development, and Domain 3: Social and Emotional Development were requested by special education professionals to address needs and plan services for young children and their families.

RATIONALE

Cognitive growth develops along with a child's approach to learning. Together, these provide the platform on which learning takes place. They include characteristics that support success in school and in life.

Children have capacity to gain knowledge and skills to figure out problems and find meaning in life's experiences and situations. As skills develop, children find what works for them as they approach learning. By nurturing and supporting children's development and personal approaches to learning, adults help children use knowledge and understanding to expand and create meaningful experiences, skills, and new ideas.

Early childhood is the foundation period for developing self-regulation and executive functions that are essential to success in relationships, play, school, jobs, and the larger world. Self-regulation and executive functions are factors for school readiness and for brain development.

Self-regulation refers to a child's ability to control and direct attention, thoughts, actions, and feelings. This is rooted in the earliest days as a baby settles into the rhythms of eating, sleeping, and alert states. It continues to develop throughout childhood.

Executive functions are specific brain functions that are sometimes called the mind's air traffic controller. Components of executive functioning are:

- Cognitive Flexibility: ability to switch gears, revise, change, set goals, and deal with complexity;
- Working Memory: ability to hold current ideas in mind while thinking, acting upon, and adding new ideas and information; and

- **Inhibitory Control:** ability to stop impulse responses, to filter distractions, and to focus.

High levels of stress disrupt the neural formation of executive functions during critical periods in early childhood and adolescence. Researchers have identified regions in the brain where these abilities develop from infancy to young adulthood. Especially notable are the regions between the limbic system and pre-frontal cortex.

Temperament impacts a child's approach to the world. Temperament includes nine inborn traits (Child Development Institute, 2007). These nine traits persist across the lifespan. Combined with the impact of primary relationships and the family environment, these traits form the child's personality and behavioral style. These nine traits are embodied in Domain 1, Goal 7, *Children interact, understand, and view the world influenced by temperament*.

GENERAL DEFINITION

Children's approaches to learning include motivation, attitudes, habits, and cognitive styles. These are demonstrated as children engage in learning and respond to different experiences and situations. Goals in Domain 1 are targeted to children's developing approaches that will support both school achievement and success in life, with an acknowledgement that a child's approach is impacted by basic temperament and the cultural contexts in which a child lives and learns.

For the purposes of the *Idaho Early Learning eGuidelines*, Domain 1: **Approaches to Learning and Cognitive Development** includes the following topics:

- **Curiosity and Interest** indicate children's sense of inquisitiveness, interest in pursuing new information, keenness for new knowledge, and desire to learn.
- **Initiative** indicates children's willingness to take on tasks and to volunteer and participate in learning activities, and willingness to take reasonable risks in learning new information.
- **Persistence and Attentiveness** indicate children's ability to stay with and concentrate attention to complete a task without being distracted or frustrated. Sometimes persistence is demonstrated by leaving a project and returning later for more work or elaboration.
- **Creativity and Invention** indicate children's ability to extend existing knowledge, and to have a "big idea" and make it happen.
- **Reflection and Interpretation** indicate children's ability to absorb, think about, compare, question, and understand knowledge and information to inform future actions and learning.
- **Concept Formation** indicates children's ability to carry out routines, categorize information and objects from prior experience, and to model and remember people and what they do.
- **Reasoning and Logic** indicate children's growing skills to create and analyze attributes (similarities, differences, and associations between objects, events, and people). These goals include causation, critical and analytical thinking, and problem solving.
- **Representational Thought and Representational Play** indicate children's ability to explore actions and sensory experiences. Children approach play in different ways to support learning. Functional play is exploring objects or materials in the absence of fantasy, and includes sensory play (sand/water) and physical exploration. Pretend play is a complex form of intellectual activity and a critical element in symbolic

thinking and the symbolization process. In pretend play, children take on roles, imagine using objects that are not present, and use things as substitutes for real objects. Through symbolic play and maturation, children come to distinguish between fantasy and reality, without losing either. Pretend play utilizes the elements of executive functioning and supports its development. Play is both the means and manifestation of children's growing understanding of the world and their roles within their culture.

SUPPORTING INDIVIDUAL DIFFERENCES, LANGUAGE, AND CULTURAL DIVERSITY

Domain 1: Approaches to Learning and Cognitive Development acknowledges that children learn and express themselves in different ways. Parents and caregivers can create supportive environments in which children are allowed to take risks and try new ideas, and in which creative processes of learning and expressing self are nurtured and valued. Adults, who use children's current knowledge and understanding as a foundation from which to build, help children create meaning as they form new experiences, relationships, and concepts.

Skilled caregivers and educators appreciate and value the diversity of children, families, and cultures; and strive to observe, understand, and support each child as an individual. Some children look and watch; seeming to scope out a situation before they move to engage. Other children may have great tactile sensitivity and use touch to explore or alternately to hold back from new sensations. Children with differing abilities, with developmental delays or who are at risk for developmental delays, or those with special talents require particular attention and perhaps adaptations as the child approaches learning.

Children are exposed to cultural patterns and values in their immediate context of family as well as in the neighborhood, community, and environment. At the family level, differences in child-rearing practices, including parental behaviors of instruction, modeling, and responses to children's initiatives influence children's learning approaches.

Culture may influence children's work styles, the way they approach and interpret experiences, and their orientation to action or reflection. Some cultures encourage children to obey and defer to adult opinions while other cultures encourage children to question and negotiate with adults. Cultural patterns also influence the way children learn. In some cultural settings learning is promoted through hands-on manipulation of materials, while others focus on visual representation, and others focus on oral traditions of storytelling or more structured interactions. Whatever the cultural influence on children's predispositions, variation in learning approaches can be embraced as equal, valued, and respected.