Objective 7

Demonstrates fine-motor strength and coordination

Fine-motor skills involve grasping and releasing objects using fingers and hands, as well as using both hands together and often coordinating these movements with the eyes. They require hand and finger strength and dexterity. An infant who slowly picks up Cheerios® one at a time with his thumb and index finger will become a 2-year-old who scribbles with a crayon. A 3-year-old who squeezes and pounds play dough will become a 5-year-old who cuts a picture out of a magazine accurately. Dramatic changes occur in what children can accomplish as they gradually gain control of the small muscles in their hands and fingers. Fine-motor skills improve with regular practice and can be supported through routines and play activities.

Fine-motor skills are important in the performance of daily routines and many school-related tasks. The pincer grasp (using the thumb and index finger, or forefinger, in opposition to one another) develops at the end of the first year, enabling the child to manipulate small objects. Fine-motor development progresses slowly during the preschool years. By kindergarten, children who have often experimented with various materials engage in fine-motor activities for longer periods of time and with less frustration than children who have not had opportunities to handle materials.

Hand and finger strength and control enable children to perform a variety of self-care tasks, such as eating, toileting, dressing, toothbrushing, and nose blowing. These skills give children the experience of doing things on their own and build confidence. Self-care skills are learned gradually and mastered with repetition. Complex skills, such as tying shoes, require children to have an adequate attention span, memory for a series of complex hand movements, and the dexterity to carry them out. Children who have difficulty coordinating the small muscles in their hands have trouble dressing and feeding themselves (Rule & Stewart, 2002).

Gender and family background also affect the development of children's fine-motor skills. Girls tend to be more advanced than boys in fine-motor skills (Sanders, 2006). Some children from at-risk families may have less-developed fine-motor skills. The risk factors were low maternal education, welfare dependency (poverty), only one parent in the home, and having parents whose primary home-language was not English (National Center for Education Statistics, 2000).

Children with disabilities and others who have difficulty coordinating the small muscles in their hands may struggle with using pencils, crayons, and scissors (Rule & Stewart, 2002). They may avoid fine-motor activities because the activities are difficult for them, they tire, or they become anxious and give up in frustration. Modification of activities and materials to fit their developmental levels, as well as more structure and guidance, can help children increase fine-motor skills (Stewart, Rule, & Giordano, 2007).

Young children in some cultures perform self-care tasks and family chores that most children in the United States do not perform until they are older, e.g., preparing food (Trawick-Smith, 2006; Whiting & Edwards, 1988; Whiting & Whiting, 1975). Some children are not expected to perform self-care tasks such as dressing themselves until after their preschool years because their families value interdependence (doing things for each other) over personal independence.