Physical Development in Preschool Children

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Three-year-old Felicia runs to the jungle gym and tries to get up the first rung of the ladder. After several attempts, she ducks underneath the play set, swings on a low rung, and finally runs around in the sand. Following Felicia, four-year-old Sam runs onto the playground and climbs steadily up the jungle gym. Once at the top, he jumps down and dashes toward the slide. Holding on, he climbs the ladder using alternating feet on each step. Sliding down, he yells with delight. Immediately, he is on to the swing, where he jumps on, belly first, and yells for someone to push him. Next to Sam is five-year-old Jason, coordinating his leg movement so that he can pump the swing to go back and forth. Both boys jump off and chase each other around the playground.

Three-, four-, and five-year-olds are filled with energy and are constantly moving. As they grow, they are developing and refining their gross and fine motor skills. Three-year-olds experience considerable growth in the area of physical development as they acquire the coordination of everyday movement. Running, jumping, and climbing becomes more automatic and less a conscious, purposeful act. Three-year-olds are still a bit unsteady on their feet and will often fall and get back up and try again. Three-year-olds are learning to run with more dexterity and coordination, as they transition from slow, stiff running to a more playful pace. Three-year-olds mount small tricycles, but are learning how to coordinate pedaling and will
often use their feet to move. As three-year-olds grow, they progress from climbing steps with two feet on a step to using alternating feet. Throwing a ball often requires the use of two hands and uses both forearms to push. The four- and five-year’s body movements are becoming more coordinated. Four- and five-year-olds can run more smoothly and stop easily. They also love to hop and skip. They are beginning to throw a ball with some ease and use two hands to catch, missing frequently. Four- and five-year-olds are developing their balance and sense of equilibrium. They enjoy riding tricycles, pushing and pulling wagons, and scurrying around in little push cars. Three-year-olds are acquiring strength in and more control over the way they use their hands and fingers. Three-year-olds play better with large blocks than with small Lego pieces. Their fingers do not have the dexterity to manipulate small objects. Peter knows where the pieces to the farm puzzle go but he is having some trouble moving them around to fit into the tight-fitting space. Three-year-olds can put their clothes on all by themselves but can have some difficulty in putting buttons through holes, zippering, and tying, which require fine motor coordination. Lehman loves to color and draw but he is less frustrated when he uses oversized pencils and crayons. Scissors are challenging and it is easier to rip something than to have Lehman use the scissors to successfully cut paper. Lehman reads what he has “written” but it is indecipherable to others. There are no distinguishable letters or words. Hand-dominance has yet to be established and he keeps switching the hand holding the crayon. Three-year-olds can sit attentively for a limited period of time, especially if there is high interest in the activity. Jason curled up and listened to his favorite story, Goodnight Moon. When Mom has finished, he said, “Read it again, please, read it again.” However, internal control and impulse control is limited. Three-year-olds don’t like to delay gratification and have limited internal control. Being asked
to wait their turn in line or to play with a favorite classroom toy can be difficult. Three-year-olds are the happiest when they are moving and actively engaged in play.

Four-year-olds’ fine motor skills are advancing. They can stack blocks 10 high and string beads. Completing a simple 10-piece puzzle is no longer a frustration but a victory. Coloring, painting, and tearing and folding paper intrigues children at this age as they develop increasing control over their fine muscles. Development at this time can vary greatly both because of the maturational level and the cultural expectations of the child (Pica, 1997). As one teacher notes, Tony easily slips his arm through the sleeves of his coat, puts the button through the large holes, and pulls on his snow boots. Kent, however, needs help putting on his jacket and adjusting his hat. At this age, cutting is a skill to be mastered. Sally holds the scissors correctly but has some difficulty in cutting completely through the paper, whereas Tommy is struggling to keep the scissors in his hands, adjusting his fingers in the opening of the scissors.

Energy levels are high for four-year-olds, yet impulse control is low. During story time, Nathan is moving around on his mat twiddling a tread on his pant leg, and Kate and Becky are talking about Kate’s new Barbie shoes. The teacher asks for the children to pay attention while she is reading and reminds them that it is only a bit longer. Four-year-olds are beginning to develop internal controls, yet their instinct is to keep moving.

Practicing holding a pencil to write is fun yet challenging. Because fine motor coordination is developing, writing skills can vary. Some close approximation of letters scattered on paper is typical for four-year-olds. Attempts at writing one’s name can vary from being able to write one letter in their name to writing a few letters to writing their whole name.

Although hand dominance is established by this age, children can still use both hands with ease. Sally mostly uses her left hand to string
beads but used her right hand one time. Subsequently, she removed the bead and replaced it using her left hand.

Four-year-old Jason carefully places his softball on a tee. He swings at the ball, misses, swings again, misses, swings two more times, misses, and finally hits the ball across the playing field. He runs with delight, squealing as he reaches first base. His friend in the field catches the ball and immediately drops it.

Five-year-olds have as much energy as four-year-olds, but both their fine and gross motor skills are beginning to be more directed and focused in their actions (Berk, 1997). They find inactivity very difficult. Fine motor skills are becoming more refined. Their control over writing implements is improving, and letters look closer to actual print. Using scissors is less of a frustration, and cutting can be fun. Drawings and paintings are now things that they can talk about and are increasing in their complexity. Human figures are no longer just heads or heads and bodies but include some approximation of arms, hands, legs, and feet. At this age, children become interested in building structures with small blocks and little Lego figures instead of oversized blocks and are graduating to puzzles with 15 to 20 pieces. Dressing is taking on a newfound ease. Most buttons can be placed through their hole; zippers, once started, can be pulled up; and children are developing the dexterity to tie their shoes.

Gross motor skills are becoming more agile and coordinated. They can combine running with skipping, hopping, and jumping. Depending on the social and cultural context, some five-year-olds begin to ride a two-wheeler and begin to master the eye-hand coordination needed to swing a bat to hit a ball. Five-year-olds do everything with a lot of motion. “Walk, don’t run!” is repeated in every kindergarten class numerous times each day. Overconfidence in their physical abilities also presents challenges. A five-year-old teeters on a narrow curb in the park as if he were walking on a balance beam. They want to swing as high as they can and dive down a slide as fast as possible.
Although keeping still is difficult, five-year-olds can be expected to listen quietly while a story is being read, walk carefully down steps at school while using the railing for assistance, and pay attention while someone is speaking to them (Ignico & Wayda, 1999). Classroom routines can help promote orderly excitement and interest in learning for five-year-olds.