

Comparing Motor Development in the 4, 5 and 6 Year-Old:

A Quick Reference

Competency 1: To perform sensorimotor actions effectively in different contexts.

Meaning of the competency

"This competency contributes to psychomotor development. Through active play and daily physical exercise, children develop their senses and their gross and fine motor skills. They move about, explore their space and manipulate various objects. They discover the reactions and capacities of their bodies and become aware of the importance of taking care of them and adopting safe behaviour." (QEP, 54)

Outcomes at the end of preschool

"The children, having been placed in a variety of classroom situations that hold real challenges, have broadened their repertoire of actions. They adjust their actions to their physical and human environment and follow safety rules, performing in accordance with the task and their level of development. The ease of movement they have acquired prepares them for learning requiring greater coordination and dexterity." (QEP, 55)

Gross Motor Development

Physical development for young children involves two important areas of motor coordination: movements controlled by the large or gross muscles and those controlled by the small, or fine, muscles.

Large muscle coordination develops before small muscle synchronization. In other words, the young child develops in the primal direction, from the trunk out to the extremities. Thus, the young child must develop arm movement control, before hand control, and must develop hand control before finger control.

Development is also cephalo-caudal in direction; it begins at the head and progresses to the feet. (Beaty, 1994, p.161)

Fine Motor Development

Fine motor development involves the fine muscles that control the extremities. In the case of young children we are especially concerned with control, coordination, and dexterity in using the hands and fingers. Although this development occurs simultaneously with large motor development in children, the muscles near the trunk (proximal) mature first, before the muscles of the extremities (distal) that control the wrists and hands. Thus it is important for young children to practice use of the large muscles before they become involved in small motor activities to any extent. Once small motor involvement is possible for children, preschool educators should encourage them to engage in all types of manipulative activities so that they can learn and then practice the skills needed to use their hands and fingers with control and dexterity. (Beaty, Pg.144)

| Gross Motor | The developing 4 year-old | The developing 5 year-old | The developing 6-year old |
|--|--|---|---|
| Walking | Can walk forward, backward, sideways and tiptoe. They are able to walk in a circular line. Can walk up and down stairs alternating feet, although skipping skills have not been perfected yet. | Are at the adult stage of walking. Children can grow up to 3 inches in a year at this age. Much of this growth occurs in the legs. Although boys may be a bit taller and heavier than girls, they are about a year behind them in physiological development (Caplan & Caplan, 1983, p.237). Can walk on a straight line for about 10 feet, most can skip alternating feet. | Can perform all of these tasks with ease and control. |
| Running | Are good runners. They can stop and start without difficulty. They can zoom around corners. The four year-old requires space and time for physical activity. | The five year-old is much taller than he was at four. He is a mature runner at this age. Many love to join in games that test their abilities. They seldom fall when running over uneven ground. | Is an expert runner at this age. |
| Jumping Taking off with both feet and landing with both. | By the age of 4 5, they are able to jump up, down, forward and over. They can only do these actions separately however. Not in a sequence. They can jump higher up in the air and jump from higher heights than they could before. | If they have had practice, 5 year-olds are long, high and far jumpers. 5 year-olds often begin learning how to jump rope. | Are proficient jumpers and skip ropers |

Hopping

Taking off on one foot and landing on the same foot.

Hopping is not well developed in children much before the age of 4. Children need to have good jumping skills, balance, leg height and strength to begin hopping. Girls are most often better hoppers than boys at the age of 4 and 5. The reasoning seems to be that much of girls' social games (hopscotch, elastics, jump rope) involve learning to hop.

Climbing

Involves arm and legs. Is an out word movement from creeping. If given the opportunity to experiment with these movements, 4 year-olds can climb up and down ladders, jungle gyms, slides and trees

If given the opportunity to develop these movements, the 5 year-old can climb up and down ladders, jungle gyms, slides and trees.

Displays mature climbing in adult manner.

Fine Motor**The developing 4 year-old****The developing 5 year-old****The developing 6-year old****Lateral dominance**

By age 3, 70% of children have developed hand dominance. Thus 30% of children are still determining hand dominance. This number changes slightly by 8.5 years of age. Only by age 11 do 94% of children develop hand dominance.

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According to Puckett et al., 2009, hand dominance is an outgrowth of hand dexterity and may not be fully dominant until 6, 7 or 8 years of age. (Beaty, 2013, Pg.147).

Turns with hand easily
(knobs, lids, handles)

Involves whole hand development

By the age of 3 children can for the most part execute this motion. However if the knob is too large, too high, too stiff (etc...) the child may have difficulty mastering the movement.

By the age of 5 children can turn handles, knobs and lids and screws easily.

By the age of 6, this movement is mastered.

According to Huffman and Fortenberry, 2011, four stages of fine motor development support early writing success. Whole arm development, whole hand development, pincer and pincer coordination development (Beaty, 2013, pg. 148).

Zippers, buttons and Velcro

Involves pincer development

3 year-olds are able to unbutton first. But many can button large buttons if given the chance. Most 3 year-olds can fasten regular snaps, but many have difficulty with heavy duty jean ones.
4 year-olds often have difficulty with the heavy duty jean snaps due to lack of finger strength.

Should be able to unbutton and button buttons easily. They can zip zippers but often need help with getting it started.
Can Velcro own shoes

Can do it all including zipping their own coats, snap difficult snaps, tie own shoes.

References

Beaty, Janice J. (1994). *Observing Development of the Young Child* (3rd ed). Toronto: Maxwell Macmillan Canada

Beaty, Janice J. (2013). *Observing Development of the Young Child* (8th ed). Toronto: Pearson