

Chapter 7

MOTOR DEVELOPMENT IN CHILDREN

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Development is the change of organism which starts from fertilization and continuously progresses until it reaches the last stage and has some certain conditions with respect to physical, mental, language, emotional, social and certain conditions (Senemoğlu, 2005). The words, “growth” and ‘development’, which are often confused with each other, are actually different concepts; one cannot replace the other. Referring to structural increase, “growth” includes quantitative changes in the body (weight gain, height increase). On the other hand, “development” refers to not only the quantity of the changes, but also their quality. The concept of development expresses a regular, compatible and continuous progress. Development is prospective and includes a significant relationship between changes (Yavuzer, 2012).

BASIC CONCEPTS OF DEVELOPMENT

Growth: Continuous changes happening with genetic and environmental factors affecting an individual, generated by zygote division, to physical maturity dynamically are considered as growth (Sevimay Özer & Özer 2004). In another definition, the division of the cells in the prenatal period and the changes in the physical structure in the postnatal period are called growth (Williams et al. 2008).

Development:Development is the process of change and maturation of the individual starting from the zygote phase and continuing until the last phase. Development cannot be achieved without learning. These developments continue at varying speeds during human life. All changes in both quality and quantity can be explained as the sequential and continuous process of change in physical structure and functions (Okely et al. 2004).

Maturation:Maturation is the reach of an individual’s level to do a duty. It is the biological change that enables the individual to reach certain levels of maturity as a result of the interaction of heredity and environmental conditions. Maturation is a process that occurs spontaneously and it is the biological changes that an organ has undergone to achieve its duty (Senemoğlu, 2005).

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been applied to children individually. Eight subtests and a total of 46 items of test materials is a comprehensive indicator of motor proficiency and it measures both gross and fine motor skills. BOMYT materials are designed to attract children's attention, to enable a standardized application, and to ease implementation and evaluation. It takes 45-60 minutes to apply the all 46-item test materials to children and the highest score is 243 (Cools et al. 2009).

Lincoln Oseretzky Motor Development Test: It is a test which evaluates the motor development of children in 5-13 age groups with learning disabilities, mentally handicapped and normal children. The Hamburg version consists of 18 items evaluating total gross and fine motor skills. A separate protocol is used for each child. The practitioner fills the box against the items by deciding whether the child is a successful or not according to his/her practice. If the subject is successful, "1" point is given and if unsuccessful, "0" is given. The motor development score is calculated by counting the items in which the child is successful (Cools et al. 2009).

ABC Motor Movement Development Test: It is a test which determines the delays and deficiencies in movement skill development in children. The test is suitable for children between 4 and 12 years. These age groups are divided into 4 separate ranges. The test includes 8 individual tests divided into 3 categories, including dexterity, ball skill and balance skills for all age ranges. The total score identifies deficiencies of children. Each item contains 6 points and while 5 points show the weakest performance, 0 points show the best performance (Cools et al. 2009).

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