

MOTOR ABILITIES OF PREPUBERTAL CHILDREN –
Theoretical Perspectives on Physical and Sports Education
at Primary School

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PREFACE

Human motor skills represent an integrated part of a personality structure and contribute to its formation on all ontogenesis levels. Their current concepts, interpretations, and structural models are still of hypothetical character only and clarification is conditioned by a long-term empirical research. Examination of motor abilities represents permanently repeated cycles applying innovated methodological approaches and relates to a search for possibilities of making the education process more effective in its individual forms and of increasing the quality of use of motor potential of the individual.

Monitoring of motor performance of child population presupposes reflection of the key factors determining its level. Thus the diagnostics can be both an irreplaceable part of the education process in case of physical education in schools and a motivating determinant of children's relation to physical activity, to health, and to healthy lifestyle. Documentation and explanation of connections among somatic preconditions, motor dispositions of child population, and physical activity may significantly face also an actual trend of occurrence of excessive body weight and of increasing physical inactivity at early childhood especially in economically developed regions.

Framing of hypothetical and theoretical models of motor performance at younger school age as well as their consequent empirical verification is currently being marginally processed. Vagueness related to definition of dimensionality and ambiguity of methodological approaches towards examination of motor preconditions of children at this development stage being reflected in rather general formulations of education goals in primary motor education initiated our long-term orientation towards the issue processed in this monograph.

The monograph is the outcome of the scientific project VEGA No. 1/0625/16 "*Effectiveness of physical activities on the development of motor abilities in intact and integrated children with behavioral disorders*", which is funded by the Scientific Grant Agency of the Ministry of Education, Science, Research and Sports of the Slovak Republic and Slovak Academy of Sciences. The research findings form conceptual basis for the design of educational physical activity models effective for the general population while reflecting specific educational needs of children as well.

Our acknowledgement is devoted to the teachers at primary schools who in large measure contributed to the realization of diagnostics under the conditions of school practice. Last but not least we would like to thank to all children for their active participation in testing.

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INTRODUCTION

Primary education represents an open and a dynamic system in which the foundations of lifelong learning are formed and it is a process of acquiring literacy, of mediating the basic cultural skills, and of cultivating the children's personality. Current and perspective changes of primary education are oriented towards strengthening of a personality developing notion respecting development possibilities of a child and stimulating its individual reserves.

The goal of physical education in the concept of primary education is oriented towards formation of motor literacy within the frame of diverse elementary and specialized physical activities. Children should become educated and informed entities in the sphere of physical culture. Cognitive teaching goals of physical education are focused on development of ability of effective multisensory and active learning. The movement is effective means not only of sensory-motor and cognitive concept of learning but of realization of behavioural goals as well. Physical education contributes to formation of motor development which represents progressive changes in motor behaviour conditioned by interaction of a motor task and of the organism of an individual under particular conditions of learning. Genetic predisposition of the individual along with the distinctiveness of conditions of learning process and demands of respective motor task determine the extent as well as level of acquiring motor abilities and development of motor performance. The role of physical education stems in creating of conditions for adaptation changes towards more effective motor control and development of motor competences.

Ontogenesis of motor skills is characterized by the individual and uneven progress. The process of motor development is realized from the simple to the complex one and from the general to the specific one in case of which the individual attempts to develop their competences in motor, cognitive, and affective sphere. Specific patterns of motor behavior become to a large degree a certain choice of typical behavior for particular age group. On the other hand, motor behavior of children in individual age categories is diverged from typical and expected patterns. In the process of education such variability is inevitable to be understood in the context of both universal and individual differences.

Motor performance as a multidimensional concept cannot be defined through a single motor ability. Currently, ambiguous remains the response to the question related to multidimensionality of children's motor performance. Structural models of motor abilities were formerly framed for the adults and mechanically applied for child population without their empirical verification. Some methodological approaches emphasise systematization on

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the basis of taxonomy of motor abilities and other are focused on differentiation of components of fitness related to health. It is clear that comparison of differently selected approaches is rather complicated.

The application of multidimensional mathematic and statistic methods allowed us to include into research intention more complex identification of qualitative part of motor skills at younger school age. Definition of the key dimensions of motor performance in case of child population enables comparison to be carried out within the scope of international measure despite the variability of application of diagnostic means. Framing of a hypothetical model of motor abilities and explanation of its inner relations contribute to actualization of theoretical bases inevitable for definition of education goals mainly in terms of their more precise operationalization. They enable the areas of motor performance, which are crucial for the conception and balanced intentional formation of child motor skills also in relation to health aspects of motor performance, to be determined.