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DEVELOPMENT OF THE COORDINATION INTEGRATION IN BOYS AGED 7 – 9 YEARS

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Many of the determinants of humans development remain incorporated in their anthropological structure, thus also in the subsegments which are even today responsible for the realisation of some basic kinematic possibilities and characteristics (Qian et al., 1994). The first such ability that is of a special interest to us is the ability of maintaining of movement in general, which we call coordination. In that sense, the objective of the procedure was to develop the abilities and to observe the growth of the children's coordination.

The sample of examinees was comprised of 487 children, primary school first formers from Split Croatia who were 7 years \pm 2 months old at the beginning of the experimental procedure. The sample of variables necessary for the assessment was selected in such a way as to cover all, the morphological, aerobic and the motor status, and one especially complex variable (Mpol). Control points in which the measurements were done were defined in the periods each lasting nine months. Data processing methods implied standard multivariate regression with Mpol criterion in each control point.

In all the cases the regression analyses are significant at the level of .01, which provides evidence about the fact that coordination in the analysed sample could not be observed separately from general biomotor abilities and characteristics. This, precisely from this point of view, it is of extreme importance that such experience be clearly registered already at the age of 7-9 years. Although at this age the development of coordination may not be set as a dominant requirement, the fact that the movement maintained has significant integrative connection with the morphological, motor and functional subsystem is not less important. Finally, this means that the programs of work should be designed in such a way that in actual activities the component of coordination work be significantly represented.

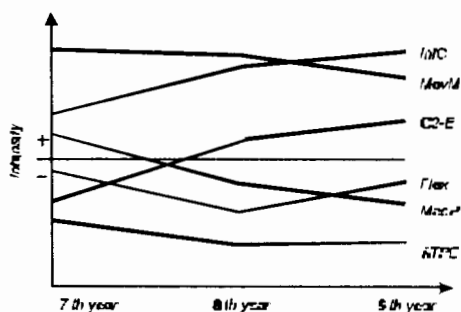


Figure 1. Model of coordination prediction development

As a conclusion, we can point to, that the follow-up and the approach to various abilities and characteristics of children should not be addressed partially, but as a whole, maybe, in a way, even multiplicatively, because the long-term effects of work are manifested diversely and the conclusions about these effects may be drawn only after several years. In this sense such a piece of information is very rewarding because it bears witness to the fact that daily activities should be followed up extrapolatively into the future, namely, bearing in mind the possible achievements of children which would largely be based on coordination abilities.

	M1	p	M2	p	M3	p
InfC	-.12	*	-.30	**	-.30	**
MovM	-.36	**	-.34	**	-.21	**
O2-E	.13	*	-.06		-.14	
Flex	.04		.15	*	.09	
Mecp	-.06		.09		.13	
ATPE	.15	*	.19	**	.18	**
Delta	.25		.40		.30	
Ro	.50		.63		.55	
P	.00		.00		.00	
InfC = Information chanel, MovM = Movement maintain.,						
O'-E = O2- energy, Flex = Flexibility, Mecp = Mechanic.						
O'-E = O2- energy, Flex = Flexibility, Mecp = Mechanic.						
persistency, ATPE = ATP energy. Delta = determination,						
Ro = multiple correlation, P = probability (*=0.05,**=.01)						
M1,2,3 = beta coef. In measurement 1,2,3						

REFERENCES

- Qian et al (1994). J Neurosci 14: 7381-7392
 Wickelgren (1998). Science 281: 1588-1590