

**CHANGES IN BIOMOTOR DIMENSIONS OF SCHOOL BOYS AGED 11:
EXPERIMENTAL PROGRAMME OF SPORTS GAMES VS STANDARD PE PROGRAMME****Abstract**

On a sample of 252 boys, aged 11 yrs±6 months, divided into the control (CG; N=127 subjects) and the experimental group (EG; N=125 subjects), a system of 33 measurement instruments was applied (12 morphological and 21 motor and functional variables). A goal was to determine changes in morphological characteristics as well as in motor and functional abilities of boys after the annual application of the experimental programme in the EG, composed of the fundamentals of sport games (basketball, volleyball, handball and football), and standard PE programme in CG, based on statistical significance of the differences in arithmetic means of the applied variables between the control and the experimental group in the initial and final measurement. Statistically significant differences between the control (Mc) and the experimental (Me) group in arithmetic means of the applied variables in the initial and the final measurement were determined by means of multivariate and univariate analyses of variance (MANOVA/ANOVA). The computed statistical values made it obvious that in the whole system (multivariate) of the applied variables (12 morphological and 21 motor and functional) statistically significant difference exists between the control and the experimental (Mc-Me) group in the initial and the final measurement at the level of $p=.00$. The results showed that the subjects of both groups scored better in the initial than in the final measurement in 6 different morphological variables each. In the final measurement, after the experimental programme treatment, the EG had better values in 8 variables (out of which only one at the level of $p=.03$), whereas the CG was better only in 4 variables. The finding indicated that only the whole system of the applied morphological variables evenly contributed to the differentiation of the groups, both in the initial and final measurements. In the space of motor and functional abilities the subjects in the CG were better in 5 variables in both the initial and the final measurement, whereas the subjects of the EG were better in 16 variables. In the initial measurement 8 individual variables (out of which 2 in favour of the CG and 6 in favour of the EG) contributed to the multivariate statistical significance of the differences in group arithmetic means at the level of $p=.00$, whereas in the final measurement 14 variables contributed to the statistical significance (out of which one in favour of the CG and 13 in favour of the EG). This indicated that the experimental programme, composed of sport games' movement structures, produced in the EG statistically significant changes in motor and functional abilities as measured in 7 variables assessing leg movement frequency, power (explosive strength) of arms and legs, flexibility of legs and arms, and arm-leg coordination.

Key words: *morphological characteristics, motor abilities, functional abilities, age 11-12 years, boys, exercise effects, experimental programme, sports games*
