

CONGRUENCES OF HYPOTHETIC LATENT DIMENSIONS OF SPECIFIC MOTORIC ABILITIES WITH THE SECONDARY SCHOOL STUDENTS AT THE BEGINNING AND THE END OF A ONE-YEAR TREATMENT

Summary

A transformation procedure lasting for one school year has been realized with 152 students of the second and third grade of the secondary Catholic school in Sarajevo. For the purpose of effects control, the testees were measured with 12 variables from the domain of specific activities with three variables each, from basketball, volleyball, handball and football. A confirmation analysis with the aim to get some latent dimensions saturated with primary variables at individual sport games have been done in both of measuring procedures. At the end, the congruences of hypothetic factor structures, described by the manifest motoric variables, have been calculated. The results in both of the measuring procedures showed that the hypothetic factors were sustainable in sport disciplines but that they were not structured as expected. In other words, the factors in basketball, handball and football were saturated with two variables each, whereas a bipolar factor describing dribbling at negative side appeared as a result in basketball, handball and football respectively. The latent dimensions have been described as a specific precision in manipulations with a ball in certain sport games. It was also concluded that the congruences of the factors from the initial and final measuring were very high (over 0.95), which means that the dimensions of specific motion were stable and if they were to be changed for any reason, it would be necessary to prolonge the treatment or increase the intensity of applied kinesiology operators significantly. It was also assumed that it would be useful to design some new measuring instruments for estimation of specific movements.

Key words: sport games, training, hypothetic factor