

CO-RELATION OF THE STANDING VERTICAL JUMP (OPTOJUMP), STANDING WIDE JUMP, AND BUNNY HOPE JUMP TESTS FOR EVALUATION OF THE EXPLOSIVE STRENGTH OF LEGS

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Abstract

The study aims to find the relationships between various tests that can be applied for explosive strength of legs. This will help to select tests for assessing the explosive strength of legs. 21 examinees were selected and the test was carried out. All of them belong to the age group of 18-20 years. Study consists of three types of jumps including Standing Vertical Jump (Opto jump SVJ), Standing Wide Jump (SWJ) and Bunny Hope Jump (BHJ). The subjects were divided into three groups for the examination. Each of the three test locations was assigned to one of the groups according to a random distribution process. Between the tests, each examinee was given a ten minute break, which was shared among all of them. They made two attempts each at the standing vertical jump and standing wide jump tests, and also two attempts at the standing vertical jump tests with opto –jump. The five continuous jump for two legs were taken. The results of the standing vertical jump and height of opto jump tests were subjected to Pearson's analysis as well as a multiple regression analysis. The information obtained from opto jump tests used as predictor variables and the criteria results from standing vertical jump considered as dependent variables. Results indicated the significant correlation between different test as per the Pearson's correlation analysis. The tests for the standing vertical jump, standing wide jump and bunny hope jump had the highest correlation ($r=0.635$, $p=0.000$) of these three tests. The standing vertical jump, and standing wide jump and bunny hope jump have lowest significant correlation ($r=0.461$, $p=0.002$) of all the three tests.

Predictor variables can give positive contribution towards the multiple regression analysis ($R=0.99$, $p= 0.000$). Here, height is considered as the dependent variable. Predictor variables provide a strong impact along with dependent variable ($R=0.519$, $p=0.017$). Here, T. Flight ($p= 0.017$) contributes very well as a single contribution. The important variable here is the time to T. flight ($p=0.03$). This stands as a third multiple regressions for the dependent variables standing wide jump SWJ. The existence of the correlation between the three tests included in this study has demonstrated that, in terms of procedure, tests are