THE CONNECTION BETWEEN THE EXPLOSIVE STRENGTH WITH THE SUCCESSFUL TECHNICAL EXECUTION ON THE GYMNASTIC ELEMENT TUMBLE BACK FROM A STATIC POSITION ON FLOOR EXERCISE OF THE STUDENTS IN FFK IN SKOPJE

Katerina Spasovska

Ss. Cyril and Methodius University, Skopje, Faculty of Physical Education, Skopje, Macedonia

Abstract

The research was made on 68 male examinees from the first year at FFK in Skopje. Based on the chosen type of examinees, total of 8 predictor variables for evaluation on the explosive strength (type of jump and type of dislodgement) were implemented, and the criteria variable was the gymnastic element tumble back from a static position on floor exercise. The evaluation (grading) of the successful technical execution of the chosen gymnastic element on the floor exercise has been made by 4 qualified judges. By use of the method of regressive analysis, the influence of the applied tests for evaluation of the explosive strength on the successful execution of the gymnastic element tumble back from a static position on floor exercise was established.

Key words: sport gymnastics, mobility abilities, explosive strength, gymnastic element,
(MESFMNR), Throwing of medical ball back with legs from laying on back position (MESFMNN). From some leverage there will be folded disposal bag with the legs and pushed forward, hands must be placed on person’s chests (MESPVNU), From leverage there will be folded disposal bag with legs must be pushed forward, but this time student’s arms are pushed forward (MESPVNP), From some leverage folded disposal Bag is pushed forward with feet, with hands holding on the ripstol (MESPVNR).

The technical performance of the gymnastic element on floor exercise, tumble back from a static position on floor exercise, was taken as a criterion variable.

The influence of the predictor system on the criterion variable was specified with regressive analysis.

RESULTS

Table 1 shows the results from the regressive analysis of the influence of some of the mobility variables for evaluation of the explosive strength as predictor system on the variable tumble back from a static position as criterion.

Tab. 1 results from the regressive analysis of the criterion PPNOM - tumble back from a static position with the predictor system for explosive strength

<table>
<thead>
<tr>
<th>Variables</th>
<th>r</th>
<th>Part-r</th>
<th>BETA</th>
<th>t-test</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>MESSDM</td>
<td>0.08</td>
<td>-0.08</td>
<td>-0.09</td>
<td>-0.64</td>
<td>0.53</td>
</tr>
<tr>
<td>MESGDD</td>
<td>0.37</td>
<td>0.35</td>
<td>0.35</td>
<td>2.87</td>
<td>0.01</td>
</tr>
<tr>
<td>MES20M</td>
<td>-0.05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.02</td>
<td>0.98</td>
</tr>
<tr>
<td>MESFMNR</td>
<td>-0.14</td>
<td>-0.21</td>
<td>-0.22</td>
<td>-1.67</td>
<td>0.10</td>
</tr>
<tr>
<td>MESFMNN</td>
<td>0.25</td>
<td>0.27</td>
<td>0.27</td>
<td>2.15</td>
<td>0.04</td>
</tr>
<tr>
<td>MESPVNY</td>
<td>0.14</td>
<td>0.05</td>
<td>0.06</td>
<td>0.37</td>
<td>0.72</td>
</tr>
<tr>
<td>MESPVNP</td>
<td>0.23</td>
<td>0.08</td>
<td>0.12</td>
<td>0.63</td>
<td>0.53</td>
</tr>
<tr>
<td>MESPVNR</td>
<td>0.11</td>
<td>0.01</td>
<td>0.01</td>
<td>0.05</td>
<td>0.96</td>
</tr>
<tr>
<td>Delta RO</td>
<td>0.51</td>
<td>8.00</td>
<td>59.00</td>
<td>2.56</td>
<td>0.02</td>
</tr>
</tbody>
</table>

The acquired important partial influences of the predictor variables for evaluation of the explosive strength will be explained with the analysis of the element.

From standing position the trainee is coming to sitting position, the shinbone, the tight bone and the upper body make angle of 90 degrees. From that position (that is the moment when the test MESGDD – jumps, up, down, distance gets important influence) a swing with the hands from back are pushed forward, and back with front raise on the chests, and in the same time a swing with the head backward is made. With faster movement with the hands and the head backwards and at the moment when the body is starting to lose balance a jump is made with the legs which continues the direction of the body going backwards, where it ends in standing on hands position. The moment when the legs are kept on the floor, the mobility test for explosive strength MESFMNN (throwing of medical ball back with legs from laying on back position) gets important influence. When the body passes the vertical position with the hands a push up is made, and the legs are synchronized with the body movement going backwards and therefore a standing position is reached at the end.

By analyzing the table 1 it can be realized that predictor system on the mobility abilities for evaluation of the explosive strength is important and medium connected with the criterion PPNOM, tumble back from a static position is important and medium connected to the system of mobility abilities for explosive strength 0.51. The variability of the criterion with the system is 26 % explained.

Important and low partial coefficients 0.35 and 0.27 the criterion variable has with the predictors of the explosive strength, type jumps MESGDD – jumps, up, down, distance and with the variable for explosive strength, type dislodgment MESFMNN – throwing of medical ball back with legs from laying on back position.

With these two variables for explosive strength it is possible to predict the successful execution of the criterion.
CONCLUSIONS

Based on the obtained results one can conclude that the system of applied mobility variables for evaluation of explosive strength have important influence on the success of the criterion variable tumble back from a static position.

To be able to confront the influence of the gravity and to direct the movements in the desired directions, it is necessary the trainee to have explosive strength type of jumps and dislodgement with hands and legs.

Depending on the level of accomplishment of the technical execution it is possible to expect important influence from another mobility tests besides the explosive strength as it was concluded in our study. This leads to the conclusion that it is necessary to master the technique in whole.

REFERENCES


Correspondence:
Katerina Spasovska
Ss. Cyril and Methodius University in Skopje
Faculty of Physical Culture,
Zeleznicka b.b. 1000, Skopje, Macedonia
e-mail:kategim@yahoo.com