THE CONNECTION OF MOTORIST ABILITIES FOR ASSESSMENT THE COORDINATION AND EXPLOSIVE POWER WITH SUCCESSFUL PERFORM TO GYMNASTIC ELEMENT, MOTOR IN FRONT LOOM ON PARALLEL BARS

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Abstract

Aim of this studies was to establish connection of motor tests intended for assessment the coordination and explosive power with successful perform of gymnastic element ,,motors in front loom,.. On the sample of 68 subjects, male students from first year studies at Faculty of Physical Culture in Skopje Applied were a total of 20 manifest at motor variables of which twelve (12) for the assessment of the coordination (coordination of the whole body, coordination of the feet coordination of rapid complex movements and reorganization of the dynamic stereotype as well as eight (8) motor tests for estimation of explosive strength (jumping on the type and the type ejection). Assessment of the successful performance was evaluation on the technical performance of the selected gymnastic element on gymnastic parallel bars, have been done by the 4 qualified judges with the use of standardized criteria. The received results with the regression analysis showed statistically significant influence on the criterion.

Keywords: coordination, explosive power, evaluation, regression analysis, students, testing

INTRODUCTION

The motorical abilities are one of the basic factors in determinating the motorical activites, in this case we are talking about sport gymnastics, and the determination of the structure on the motorical space as a segment of the anthropological space of the person is always in the focus of the interesting of many foreign and ours experts.

From the review of previous research in this exertion is an attempt to study only one segment of the anthropological status of the person, motor space, but not entirely, only part of it which I think is the most important for reaching the successful performance of selected gymnastic elements . Knowing the complexity of the elements and specificity of gym machines , I decided to handle and explore the part of the motorical movements which includes coordination and explosive power, and the successful technical performance of the selected gymnastic elements. But here I did not analyze all the space of coordination and explosive power, I’ve decided to examine only certain segments of these two areas separately.

Considering that in this sport of gymnastics are performed fast and complex motor tasks, forward and back, legs, hands or whole body I have decided to research the following factors apply to the coordination: coordination of whole body, coordination of legs, coordination to perform fast and complex movements and reorganization of the dynamic stereotype.

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When it came to the part of choosing a test to assess explosive power , I was conducted, according to the results, of the classification the Mila-
novic D. (1981). The two factors that he asided of the explosive power are: absolute power of an explosive power, it means type of jumps, and the relative type of explosive power or type of jumps.

So diagnoses of succeeding in sports gymnastics focused this exertion is the detection of the relations of space responsible for motor coordination and explosive power of some parts of the body and successful performance of gymnastics persistent element in front.

Gymnastics assessment element is carried out with standardized criteria adapted and aligned with the way the assessment during regular classes and certain parts of this policy assessment in male sports gymnastics applied to games.

METHODS

To achieve the objectives of our research is a research procedure conducted on a sample of 68 respondents, male students of first year of the Faculty of Physical Culture in Skopje, generation 2007/2008.

The Predictional system consists 20 types motor variables of which twelve (12) are for evaluation of the coordination of certain body parts (the whole body coordination (3), coordination of legs (3), coordination of rapid complex movements (3) and reorganization dynamic stereotype (3) and eight (8) tests to assess the explosive power (type leaps 3) and type of discharge (5).

In assessing the COORDINATION of the following tests were used:

1. Coordination of the whole body surface:
   1. Movements on the floor (MKOPOD)
   2. Movements in the air (MKOVOZ)
   3. Crossing the parallel sticks (MKOPPP)

2. Coordination of legs:
   4. Skip or reapproching horizontal rope (MKNPHJ)
   5. Climbing and getting down Swedish scales (MKNKSS)
   6. Side steps (MKNCVS)

3. Coordination of fast and complex movements:
   7. Skipping and jumping over (MKBPPI)
   8. Climbing and getting down a desk and jumping chair (MKBKS KR)
   9. Making an eight with tilting (MKBOSN)

4. Reorganization of dynamic stereotype:
   10. Long-jump backwards (MBKSKR)
   11. Polygon backwards (MRPONA)
   12. Climbing and getting down the stairs backwards (MRKSSN).

For evaluation of the explosive POWER used in the following Power were used these tests:

Types of jumps:
1. Jump from one place to some distance (MESSDM)
2. Jumps up-down-away (MESGDD)
3. Running 20m. from high start (MES20M).

Type of disposal:
1. Throwing a medicinka from the lying on your back with arms forward (ESFMNR)
2. Throwing a medicinka from the lying back to back with legs (MESFMNN)
3. From some leverage there will be folded disposal bag with the legs and pushed forward, hands must be placed on person’s chests (MESPVNU)
4. From leverage there will be folded disposal bag with legs must be pushed forward, but this time student’s arms are pushed forward (MESPVNP)
5. From some leverage folded disposal Bag is pushed forward with feet, with hands holding on the ripstol (MESPVNR).

In this case, the technical performance gymnastics loom persistent element in the front has been taken like a categorically variability.

For processing the obtained data are applied basic statistical indicators: the arithmetic mean (X), standard deviation (SD), coefficient of variability (KB%), lower and upper limit of the range in which the results range (Min-Max). Normality of distribution of the results of the applied variables is checked by the method of Kolmohgorov and Smirnov. The impact of system of the predictional categorical variable was determined by regression analysis.

RESULTS

Table 1 provides basic statistical parameters of the motor variables for coordination and explosive strength (power). In the interest of space they are not further interpreted.

The table 2 shows the results of regressive analysis of the impact of some variables for motor assessment and coordination system based on the predictional variable in front of the loom as a criterion.

The predictional system of coordination is highly significant and is associated with the criteria RUPVP-persistent in the front (0.63). Changes
in the successful performance of categorical variable can be explained with only 40%. With the predictional coordinate system that has been applied can be predicted the successful performance on this element (Table 2).

Significant and low coefficients of partial regression with a criterion has an assess of coordination of the whole body MKOPPP (-0.47)-crossing parallel sticks (or beams) with rapid and complex movements MKBKSKR (-0.25) - climbing and getting down on the desk and jumping chair and with variable the reorganization of dynamic stereotype MRPONA (0.34) - polygon backwards.

With these tests can be performed partial prediction of the criteria.

The table 3 shows the results of regressive analysis of the impact of some motor variables to assess explosive power as predictional i system based on persistent variable as a criterion in the front.

Sign Inspection in the Table 3 you can see that the predictional system of motor skills assessment and high explosive power significant is associated with criteria (0.51). Variability of the criteria is explained with 26%. Such a relationship is significant at the level of the system 0.01. The connection between criterion and and the system allows the successful prediction of the performance the criterion RUPVP-persistent in the front.

Significant partial regression coefficients 0.32 criterion variable has with the explosive power of the type of jumps MESGDD (0.53) - jumps up-down-away. With this test can be performed a successful prediction of the performance criterion.

In order to perform this element first must be mastered all technique to weave in leverage and technique of transferring the reactive swing. Obtained significant partial effects of predictional variables for assessment separate parts of coordination and explosive power to explain the analysis of the element.

After swaying in the ultimate leverage final point in prices for the body is thrown or bit disposed and move down and forward. The moment when the body moves from front to backwards, we can perceive the impact of the reorganization test dynamic stereotype MRPONA (polygon back-
The body is upright in vertical position and in some versions with higher amplitude can be bent backwards. This is followed by the swing of the legs, which allows rapid movement of the legs forward and up.

When your, student’s feet (legs) will go faster and get vertical, somewhere around 45 degrees in front, the person must block with legs. This is the moment when the test for the coordination of whole body MKOPPP (moving throw parallel sticks or beams) confirms its influence. The rapid movement of the legs is transmitted to the reactive part of the lower body, while his hands are pressed down towards the stick (or beam).

Blocking with the legs (or feets) and hands pressure of the loom are two forces acting in the
opposite direction and that allows the body as a system to move forward and up.

When the body and feet will reach the highest position, arms are fully extended and the body is stretched and continues to move forward, that is persistent in front wobble.

Analyzing the performance of the element of leverage (starting position) to persistent (final position), or from below to above, clearly indicates the positive impact of the explosive power test - MESGDD - type jumps - jumps up - down - away. Rapid block feet and launching (uploading) the body from lower to higher position, clearly is confirming the rapid test for complex movements MKBKSKR (climbing and getting down on desk and jumping chair).

Given that small simply no time to be performed more movements with the hands, feet and body in difficult conditions requires a person to dispose all motor abilities of coordination and explosive power that showed its influence in regression analysis. Because of these motorical skills that has been explained, first they should be developed at the required level and then begin the process of learning and mastering the art.

CONCLUSIONS
According to all results that has been reached, we can conclude that the system of variables that has been applied to assess motor coordination and explosive power have a significant impact on the success of criterion persistent variable in front of the loom.

To successfully perform these movements, it requires the respondents to have as I mentioned in coordination - the ability to perform complex motor tasks, performed as a complex element. To counter the negative influence of gravity and motion to direct in the required direction, it is necessary the person to dispose with explosive power of the type of jumps and throwing their hands and feet.

The degree of independence from the technical performance can be expected to demonstrate significant impact and some of the tests of coordination, but not just the system that is obtained in our research, which indicates that it is necessary to master the technique in general.

REFERENCES


ПОВРЗАНОСТА НА МОТОРИТЕ СПОСОБНОСТИ ЗА ПРОЦЕНКА НА КООРДИНАЦИЈАТА И ЕКСПЛОЗИВНАТА СНАГА СО УСПЕШНАТАНА ГИМНАСТИЧКОИТО ЕЛЕМЕНТ - УПОР ВО ПРЕДНО-НИШАЊЕ НА РАЗБОЈ

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Апстракт

Целата на истражувањетото беше да се унапреди јоврзаноста на моторните способности со истрадуване на координацијата и експлозивната снага на координирање на елементите на гимнастикиот, за да се изведат основни дискова и тестови за промакнување на своевремено и своевремено. Овој пролом бил константен по време на истрадувањето на координиранието, координацијата на моторни способности на елементите на гимнастикиот. 

Ключни зборови: координација, експлозивна снага, оценивање, регресивна анализа, съпоставки, истражување