

LEARNING ELEMENT „URZICĂ“ IN PARALLEL BARS

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Abstract

Currently there is an ongoing concern for increasing difficulty, precision and spectacular technical elements and combinations. Also, there is a tendency to introduce new elements, original and dynamic, full of technical virtuosity in each unit. In light of the new code of points, there is an increased requirement referees.

This requirement will be determined by regulations granting bonuses (between one and six tenths). They are obtained by performing elements D, E and F, the extreme difficulty or complicated their specific binding. Gymnasts training towards future years is the most important task of coaches.

Keywords: biomechanical analysis, motion technique, element “Urziacă”, coordination, technical elements.

Introduction

Well defined discipline statutes constellation Olympic sports, artistic gymnastics sports is an important part of human life in today's society, with a special contribution in training and development of human beings. It also sports a size gym that has taken decades, contributing to the establishment of friendly relations and cooperation between people, which characterize a modern and civilized society.

The motivation for choosing topic to research wants to break into the creative process of a privacy original technical element, the parallel world premiere performed by a Romanian gymnast. Technical Committee males (C.T.M.) of the International Federation of Gymnastics (FIG) has approved the technical element leap forward stretched back 360° in support arms in parallel as the element “Nettle” after the athlete who performed the world premiere of the

competition official — F.I.G. The technical element is passed in the latest edition of the score masculine code of the International Federation of Gymnastics, p 106 no. 44 and 45.

Purpose and objective elements in parallel is known for some time that the support arms leap forward. We asked the question: if this element can be technically and return 360° in support arms. This would be a world first in the field.

Every published this idea to its practical experimentation questioned. Difficulty of anticipating new technical element was determined that his success would depend on two things concrete. The first aspect would be to jump forward in support support arms with large amplitude with a flight phase longer time in order to graft movement back in the shaft cross body, movement screw 360° around the shaft longitudinally. The second would be to return perfectly targeted in order to fit the narrow corridor of bars appliance (up to 52 cm wide).

Increasing the amplitude jump forward in support arms requires a substantial improvement of physical qualities (strength, speed, skill, coordination, orientation) and special technique improving balance in support. Making a leap forward with the back support 360° of perfect directional support arm axis anticipated to be extremely difficult because of the practice known existing or potential deviations in the combined return plans. Therefore, solving these problems requires significant improvement functions analyzers: kinesthetic, vestibular and visual forms of expression specific to the implementation of return jump forward 360° of support.

Parallels bars — Overview

Exercises to contain mainly parallel momentum and flight elements related to each other, executed with dynamic bars above and below, including positions on a longitudinal support bar. Allowed and execution of elements of force, but their presence is not too encouraged by regulation. Device, by construction, with two parallel bars offer a very good and reliable support that enables a very wide range of movements. A review of the Code of Points male shows that parallels are most diversified technical content of 6 samples. In the

latest edition of the Code of Points - FIG technical content is structured to parallel movements in 11 groups, which were listed in boxes over 250 techniques.

Technical specification for parallel bars

Parallels bars as evidence of sportive gymnastics male is characterized by an extremely high technical content and varied. The technical term means different methods of implementation of specific motor actions in accordance with the laws of biomechanics. The technique is created by man in order to increase effectiveness of different driving actions. The overall level of technology does not remain the same, but improves the enriching extent practical experience and theoretical knowledge. Movements to improve technique has a significant contribution as the laws of mechanics apply biomechanics and human body movements. Knowledge of these laws is particularly important in scientific substantiation of various techniques. Movements in parallel technique is determined by several factors:

- The acyclic and complex movements;
- Apprentice to support specific body positions;
- “Plastic movement”, the very execution of movements, specific style of dress and segmental body.

Technical description of the item “URZICĂ” in parallel bars

Of transverse support leap forward swing back and stretched back 360 ° support arms - the element value “E” and the support element support value “F” This element is particularly technical and complex as the performer’s body must realize simultaneously two complete turns of 360 ° in two different planes, namely a return to a screw axis transverse to longitudinal axis of the body. In addition to this complexity “URZICĂ”, technical element leap forward stretched with back support arm 360° and the item called is very difficult because the execution is carried out preparatory actions in support position. It is known that the upper limbs have a limited capacity show of force in this position, especially when the gymnast body moving at an accelerating speed.

Also this technical element is very risky because the actual

execution of the movement (the fundamental phase) should be the corridor bounded by two parallel bars of that design may not exceed 52 cm. This restriction of movement makes as little deviation during turning around the longitudinal axis of the body to strike a balance with bars that would bring penalties of arbitration and could traumatize performer, working with important psychological consequences. In terms of the art sound and temporal sequence element lying to return leap forward in support arms 360° element called “Nettle” I have divided into three phases:

I. - a preparatory stage of accumulation;

Ms - a trigger point of the jump,

II. - A fundamental phase in which the body made two turns around the transverse and longitudinal axes: body jump back stretched 360°;

Mc - one point of contact with the camera directed;

III. - A phase of taking the support arms.

Muscular exertion

In terms of performance complex rotary element lying leap forward in support arms 360° element called “Nettle” the gymnast musculoskeletal and especially its ability to develop muscle effort is particularly sought. Preparatory phase actions in this case, the balance in support of gymnast muscle work is performed under failure. The regime “is characterized by a large muscular economy, allowing athletes to build muscle work 50-70% more than the regime to overcome” (I. Menhin). Perhaps this is one of the factors that allow gymnasts to bear huge efforts. Gymnast’s muscular effort in this phase is mainly focused in keeping your device, consisting of an act of opposition to the force of gravity and centrifugal force. While performing basic activities of technical elements leap forward stretched with back support arm 360 and the item called “Nettle” performer using mobility, and muscular support efforts aimed directly at execution element. These efforts are judged by their absolute value considerably lower than those submitted during the preparatory phase.

Biomechanical basis of screw

The basic mechanism of technical elements leap forward stretched with back support arms 360 and the item called “Nettle” is the simultaneous execution of two turns in two different axes. If turning the transverse axis of the body is achieved at the expense of physical qualities that power-speed turns around the longitudinal axis of the body are the result of good driving skills that smoothness is determined. Studies have shown that there are several methods to generate rotation axis of the body so-called “screw”. Using either of the methods depends on the specific movement and the propensity performer. Most often consciously or unconsciously use a combination of methods to create rotation “screw”.

In practice notes that are driving gymnasts performing multiple screws easily, while others have difficulty running even simple screw. Role of kinesthetic analyzer, vestibular and visual is crucial in achieving screwed. The first process is achieved by creating a Screw Torque longitudinal axis, passing in a symmetrical position (body mass repair modification to the axis of rotation). Given the phase of flight and a torque by peripheral vicinity of the longitudinal axis of the body acceleration is achieved by reducing the angular velocity moment of inertia, the score is the screw. The second process is achieved by using specific effect on the reaction force action-reaction. Vigorous action of the upper limb in a body part that causes a reaction equal and opposite force on the opposite side. With this procedure can not be made larger screws, but only half back. The third method of turning is accomplished by successive slight body curls and extensions based on action and reaction can vary using the moment of inertia of the body segments through these successive changes. The fourth method is by partial transformation of the axis of rotation transverse to the longitudinal axis. This is an exquisite process and is achieved only by performers with very good traction. The fifth and final printing process is done by screwing movement support by using reaction that triggers return after the screw is continued by body mass near the longitudinal axis of the body, decreasing the moment of inertia and angular velocity increase.

The level of the home learning element ‘URZICA ‘

In our opinion, except items can not be made, especially during first appearances, rather than exceptional gymnasts who have the specific accumulations home.

Extended to return the item leap forward in support arms 360 element called “Nettle” requires the following requirements for the accumulation start gymnasts aspiring to achieve this:

- A remarkable explosive force of arms;
- Knowledge of the perfection of the jump before the support extended support;
- Knowledge of the perfection of the jump before the support extended support arms;
- Affinity, skill, technique for screwing movements executed before;
- A special sense and parallel bars;
- Perfect knowledge of balance in support;
- Higher-level mastery of the elements that precede the leap forward, but what it is;
- Athlete must be in possession of a belt scapular - humeral strong;
- Special psycho-behavioral skills: general coordination, coordination segment, static and dynamic balance, body schema, alter, ambidextrous, spatial-temporal perception, kinesthetic, feedback, repetition, anticipation;
- Other performance skills: learning ability, resistance to disturbances, ability to mobilize energy, mental recovery capacity, attention, thought, imagination, memory, each with multiple attributes psycho-affective (emotional balance, stress resistance) and psychosocial regulatory volitional (voluntary effort, perseverance, combativeness, resistance to pain).

Research methods used

A work must satisfy, which should work against conservatism, which stimulate those interested in finding the best solutions suitable permanent raising of gymnastics, I thought to be addressed using the most effective methods.

In this determination they were:

A. Documentation - Study of general bibliographic material and interconnection;

ARENA - Journal of Physical Activities

- Research literature: books, magazines, newsletters F.I.G. or F.R.G.;

- Study videotapes competitions;

- Participation and registration major issues in competitions.

B. Methods of investigation

- Teacher observation;

- Research and technical analysis of video recordings;

- Pedagogical experiment.

C. Methods of data processing

- Plot method;

- Logical method.

Physical and technical control samples used

in the pre-experiment and post-experiment were as follows:

1. Of support, swing forward, swing backward bending arms and spreading the arms in their hands standing; resume (pushups in hands sitting in balance) - dynamic composition - number of repetitions - 10x;

2. Of the parallel support equal to dim body, set at the ankles, 10 repetitions lifting clogged and high support over horizontal axis transverse scapular-humeral to maintain the maximum after 10 reps. The timer starts after the high position and stops when descending below the horizontal axis transverse level

3. By supporting the parallel swing back and leap forward over the bar lying on a mattress set that pushes sub contractor to take landing.

Measure height during leap forward. The mattress is a special measure, and the bar is elastic cord to give back when landing.

4. At a special facility, consisting of small elastic net, trampoline spring and a mattress that is marked a break line, running from a reversal jump ahead by sitting on your hands turn 360 ° in the supine on the mat marked. Deviation is measured in degrees from the longitudinal axis of the body midline marked on the mat. Draw and color the mattress of 52 cm corresponding remoteness parallel bars.

Conclusions and proposals

Following completion of the research that has been the focus of

achieving a technical element, new, original in parallel, we are able to draw some conclusions.

Realization of the jump before turning 360° stretched the support arms support and present the news in official competitions proved that this technical element can be performed, confirming the working hypothesis. Approval by the International Federation of Gymnastics element “Nettle” proved creative vocation of the Romanian school of gymnastics. Penetrating intimate process of creation of innovations, one can say with certainty that without a scientific knowledge base and multidisciplinary performance value can not be obtained. The research provides technicians reach well proven technology, effective learning and improvement element “Nettle”. Also, how was approached for making this element can be an example for imagining and learning other original features.

Research results confirmed the strong relationship between the level of development of the technical and physical qualities. Basically element “Nettle” can not be executed if the physical qualities are not highly specific expression. Organized experiments were established precisely control samples and standards we can provide objective data on which element implementation “Nettle”

1. Home level, the system proposed complex operation, control samples and standards which ensured ascent learning objective be standardized and used as a single criterion and serious analysis of learning activities such item.

2. Means and methods used in terms of a greater number of repetitions, for the better dosing and awareness could lead to results closer to the ideal model.

3. The theoretical model proposed and experienced, may be a valuable reference for professionals reach.

4. It emphasizes the need for this type of research in the near future.

5. Finally, I propose that this research method made, to be continued at a higher level in the coming years.

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