MINISTERUL EDUCAȚIEI NAȚIONALE
UNIVERSITATEA AUREL VLAICU din ARAD

ROMÂNIA 1918-2018 | SĂRBĂTORIM ÎMPREUNĂ

UAV • FEFS 2005 ARAD ROMÂNIA

ISR EIE
7TH EDITION ARAD 2018
INTERNATIONAL SYMPOSIUM RESEARCH AND EDUCATION IN AN INNOVATION ERA

Proceedings of International Symposium "*Research and Education in an Innovation Era*".

Physical Education and Sport Section:

Health related physical fitness vs skills related physical fitness – new perspectives approach to physical fitness

Vol. I, 2018, Ed. 1

The International Symposium Research and Education in Innovation Era
"Health related physical fitness vs skills related physical fitness – new perspectives approach to physical fitness" Arad,, 7th Edition, May 17th-20th, 2018
Address: B-dul Revoluţiei nr. 77, 310130 Arad, Romania, P.O. BOX 2/158 AR
Telephone/Fax: +402570211044
https://uav.ro/en/conferences/isreie-2018

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Proceedings of the International Symposium "Research and Education in an Innovation Era".

Physical Education and Sport Section

ISREIE 2018

Health related physical fitness vs skills related physical fitness – new perspectives approach to physical fitness

ISSN 2601 – 6923

ISSN-L 2601 – 6923

Functional training in children and its effect on coordinating skills and movement performance

(A perspective from point of view of developing functional capacity in relation to performance over the years)

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Abstract

From childhood to adolescence physical and functional development has a dynamic as well as basic progress for the adult to be. The training of functional and coordinating parameters that leads to the desirable movement performance is also the core of training with this age contingent. ***The success of training in this age group is very seriously conditioned by the consideration of the development of functional capacities over the years and their harmonic continuity from childhood to adolescence so as to have an optimal development of the coordinative skills and consequently of the movement performance to end with.***

Indeed, the socialization and harmonization of the development of physical parameters is a very important objective in the success of training for the purpose of developing functional parameters within the context of improving movement performance over the years.

Objective of the study

By reviewing and analyzing contemporary literature on functional training regarding the improvement of coordinative skills, movement performance, we intend to clarify how the development of functional capacity parameters dominates movement performance in children and adolescents.

Methodology

The search of contemporary scientific journals was carried out through the Jab Ref program and the following data were used: Medline, Google Schoolar and Pubmed. Key words used to search for scientific articles were: coordinative development, movement performance, as well as functional, conditioning and coordinative parameters. A total of 188 articles came out from this research. The shortlisting of the articles was made based on the

criterion of the children's age (6-16 years). Eventually, 16 articles were used in this literature review.

Discussion and conclusions

At the end of this literature review, we observed that the interaction and cooperation of growth and maturity at strength level and movement performance are contributing factors.

Other factors that significantly influence the level of strength and movement performance are namely: instruction, exercising, specialized training, and other environmental factors. Given that the stability of strength and movement or motor performance during the years after childhood and adolescence is low or moderate, it is difficult to predict later performance as compared to that in young age.

Key words:

Movement performance, static & dynamic strength; muscular stability; balance; strength; body composition.

Poster Presentation

The sport tourism economy in the balcan countries

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Key words: Tourism,Physical Activity and Recreation, Sport, Economy

Objectives. The Sport and Tourism plays an important role in economic growth and social development of our nation. Therefore, the main goal is to aim this research towards assessing and identifying the connection between Sport and Tourism and also analyzing the progress variance that this degree can produce by creating new initiatives. The tourism industry has begun to recognize sport tourism as a potential imminent area to be developed, especially in the West Balkan Area. In order to achieve a clever sport tourism market, it is essential for communities to develop a profound understanding, in regards to forecasting the benefits and impacts, in their region. Such that, can yield progression in each country. Congruently, is necessary for a strategic process of bidding events, possible sponsorship opportunities and other crucial elements involved in planning and hosting a successful sport event.

This academic research will provide answers to six main questions about sports tourism:

1. What is sport tourism?
2. Why has sport tourism become so popular?
3. What are the impacts of sport tourism?
4. How do I host a sport event?
5. How can I attract sponsors?
6. What are the characteristics of sport tourists?

Mainly, sport tourism refers to the experiences that travelers are engaged in, or view sport-related activities. Generally, they recognize that there are three types of sport tourism:

1. Sport Tourism participant event,
2. Sport Tourism current activist, and
3. Nostalgia Sport Tourism.

Accordingly, this research method in this study is purely based into descriptive quantitative approach. The purpose of this quantitative approach, is to examine the role between sport tourism and its impact on the economic development of the region. The findings from the exploratory sample survey, its to support and promote the strategic role of sport tourism into several areas. Such that will illustrate that it can improve its economic activities through the hosting of regular or small sport tourism events. It is recommended that small or regular sport tourism events should be hosted using existing facilities that do not require substantial financial investments.

Methods. The research method employed in this study will be a descriptive study approach. The purpose of this approach is to examine the role between sport and tourism and its impact on the economic activity of the West Balkan Countries. The findings from the exploratory survey support the role of sport tourism to the actual tourism activities in these countries and will illustrate that it can improve its economic growth through the hosting of regular sport tourism activities. This analytical approach, will sustain the define that sport tourism activities should be hosted using existing facilities that do not require substantial financial investments, according to the actual infrastructure situation in this countries.

Sport Tourism activities include the follow activities:

- White tourism (skiing);
- Bird/Animal Watching;
- Alpinism;
- Biking;
- Kayaking;
- Hiking;
- Scuba Diving; etc.

All the above mentioned, are outdoor activities which take place in different natural environments, therefore these activities do not need any special high class touristic infrastructures that the Balkan Countries do not actually have.

Results. This analytical study, will provides explicit answers to the questions regarding the sports tourism outcome to the local economy's. Thus, extracting rational solution in benefit of those communities.

In conclusion, sport tourism is a new concept, a progressive one in the world. Yet, have and or generates most of the growth national GDP. Many countries enjoy an appropriate status with respect to sport tourism and accordingly contributes directly to their nation's economic prosperity. Hence, the goal of this research is to analyze this strategic move, henceforth starting implementing this tremendous information, realistically and concretely into our country. Subsequently, will create a perfect sport tourism induced employment and generate large income, and tax-return's in the Balkan Countries. Albania is a new country in the map of sport and tourism destination that is truly promoting 'Sport Tourism', as a flag for entering in to a huge market industry of tourism worldwide.

Good luck Albania.

P.S To be presented as an oral presentation.

Technical and tactical aspects of preparation in football, 12-14 ages

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Abstract

In any sporting discipline, regardless of its nature: sports individual, team sport or both equality, technical training model it is very important, in order to increase sports performance, as technical training combined other components of sports training(physical training, tactics, theoretical, psychological and body recover after exercise), which determine the level of sports performance. **The purpose of this research** it is to create, through multiple methods and means of action, a model of technical training tailored to children aged 12-14 in football. **Material and Methods:** The study they were contained two groups of children aged 12-14 years. For justness result, the trial is conducted on two groups(control and experimental), which have the same level at the beginning of the experiment factor of development pursued.

If the present study, independent variable is given by methods and means used in the model of technical training, applied to the experimental group, and the dependent variable is given by progress on technical, evidenced by samples of control applied.

Results: It is worth mentioning that the two groups, the control and experimental, were, at the time of the experiment, and relatively equal value, and after the training program applied experimental group we will see a positive development, its most significant to the control group.

Conclusions: Development and implementation, in a systematic way, a model training children 12-14 years technical subject experiment, it led to improved technical capacity of children.

Key words : football, technical, tactical, children

Introduction

Technical training

A technique sport branches it includes all shares driving ideal executed from the point of view of their effectiveness.[2] It involves making rational and economical a certain kind of movement, specific branches of sports, each constituted according to its own regulations, in order to obtain higher yields in competitive activity.

Technique is important primarily through movement economism and efficiency. It is largely conditioned by the other components of sports training, especially physical training.

In preparation for beginners is a basic rule, that of ensuring the availability of all necessary physical properties of the first technique, which involves a large number of repetitions.

Failure of the appropriate level of exercise capacity causes a faulty technique.

The level of technical training of an athlete depends on the initial level and the experience of its motor.

Acquiring skills and abilities luggage makes a request to move top of the sensory system, which fosters learning movements.

Analysis and technical preparation technique highlights the following components:[3]

- technical element is a fundamental structure underlying motive practicing a sport branches; volleyball care, throwing goal in handball, soccer goal kick constitute fundamental driving structures, which together with other underlying practicing respective branches.

- particular technical process is how to carry out technical element, for example: shot on goal by avoiding handball, shooting the jump, etc.

He is the consequence of factors such as: the creation by coaches and athletes new models of efficient processes, taking into account the peculiarities of morpho-functional and mental athletes, quality sports equipment, etc.

- style is personal touch or particular way of carrying out a technical process. While respecting the basic mechanism of the said process, however morpho-functional peculiarities and psychic impress upon execution.

- the basic mechanism of the technique consists of a logical sequence of motor acts needed to make it effective: moose, fighting, flying, landing the long jump in track and field.

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2 Manno R., (1996), Les bases de l`entraînement sportif, Research center for sports , Bucharest, p.85

3 Michels R., (2001), Team building: the road to success, Reedswain Inc., p.45

He must be understood as an act (acts) motor (s) represented by: spatio-temporal aspects (distance, position, direction, duration, rhythm) dynamic-energy aspects (strength, speed, precision, coordination, balance).

Tactical preparation[4]

Features tactics at this age are progressively forming tactical thinking whether the means used a methodical line enabling element for progress and creativity;

- well as games go from 1 x 1 to 5 x 5 value groups;
- appreciation in land spaces, free zones (forward, backward, sideways) represents the concern of teachers, coaches for little athletes to avoid them;
- use shuttle pick-up-transmission, so a kind of "GIVE AND GO" leads us to the first elements of tactics;
- pass the next couple position, preceded by taking possession.

Reasons why young people practice some sports are different, but most are related to the satisfactions offered by this activity.

The main reasons that cause the individual to practice sport are: assertiveness, social trends, interest in the competition, desire to win, the aspiration to become a sports top, looking for compensation need to move aggression and combativeness, taste risk .

Young player is permanently with the alternative: worth persevere? It is endowed with enough talent to achieve the ultimate goal?

He must be convinced that it is worth persevering, of course only if there is a possibility of success.

This is the way of conviction, to clarify goals and performance targets, is opening up to the social perspective of self-affirmation. In this area coercion, threat no results.[5]

Methods

Participants

36 subjects, children 12-14 years, of which 18 constituted the experimental group and 18 controls.

To carry out this study have used several methods that have helped in solving tasks.

These methods are specific research methodology corporal activities, namely:

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4 Stanculescu V., (1988), Guide football coach, Publishing Sports - Tourism, Bucharest, p. 147

5 Berner, R., Levy, M. (1990), Principles of Psysiology, C.V. Mostry Co, St. Louis, pag. 324-326

1. bibliographical study method;
2. observation method;
3. The method of the experiment;
4. statistical and mathematical method;
5. The graphic method.

TEST / PROBE OF CONTROL INTENDED FOR RESEARCH
TECHNICAL TESTS FOR JUNIORS

TEST no. 1: Juggling feet - keeping the ball in the air by successive blows executed alternately with both legs and thighs; two tests, note the best execution.

TEST no. 2: Juggling head - keeping the ball in the air by successive blows to the head; Two tests and record the sum of the two outputs.

TEST no. 3: Hitting five consecutive balls, placed on line 16 m on the gate leg adroitly; air ball must pass the goal line denotes the number of successes.

TEST no. 4: Hitting five consecutive balls, placed at 11 meters from the gate leg awkwardly; it must exceed the goal line in the air; denotes the number of successes.

TEST no. 5: Striking head pass six balls centered near the goal posts by coach (three balls and three balls left and right). The ball is hitting the right point to 11 m, a circle of 3m on goal defended by the keeper.

TEST no. 6: Taking legs, thighs or breasts bounced a ball thrown by coach from a distance of 10m in a circle with a diameter of 2m - five executions.

Statistics

Research variables for this study, the independent variable is given to the methods and means used in the model technical training, applied to the experimental group and the dependent variable is given on technical progress, as evidenced by samples of control applied.

Results

At the beginning of the experiment, both groups were tested initially set based on control samples.

The experimental group was subjected training program proposed and after 8 months of preparation, 3 workouts per week, they were tested Finally, based on the same evidence control, to see the progress, regression or stagnation in the development of the subjects.

The control group did not follow the proposed training program, but after 8 months, and was tested using the same control samples.

Chart 1 Values apply statistical indicators to tested to initial and final testing of the two groups in the experiment contained

Apply statistical indicators		Experimental group		Control group	
		T.I.	T.F.	T.I.	T.F.
Sample 1	X	82.94	111.33	79.83	89.89
	S	26.42	36.51	23.04	20.69
	Cv (%)	31.86	32.79	28.85	23.01
Sample 2	X	18.33	24	17.44	19.22
	S	8.04	11.08	6.28	4.73
	Cv (%)	43.88	46.18	36	24.63
Sample 3	X	3.83	4.11	3	3.28
	S	0.71	0.76	0.49	0.75
	Cv (%)	18.45	18.45	16.17	22.94
Sample 4	X	3.22	4.33	2.39	3.11
	S	0.88	0.69	0.50	0.47
	Cv (%)	27.25	15.83	21	15.15
Sample 5	X	3.44	4.17	2.72	3.28
	S	0.70	0.86	0.46	0.57
	Cv (%)	20.46	20.58	16.93	17.53
Sample 6	X	3.39	4.39	2.78	3.28
	S	0.78	0.70	0.65	0.67
	Cv (%)	22.94	15.90	23.28	20.41

The results of the two groups of subjects included in the experiment, both the initial test and final test from, are summarized in Tables 2,3,4 and 5.

Present in the table above values apply statistical indicators, the two tests.

Chart 2. The results of initial testing the control group

Nr. crt.	Subjects	Sample 1 Ex. correct	Sample 2 Ex. correct	Sample 3 Ex. correct	Sample 4 Ex. correct	Sample 5 Ex. correct	Sample 6 Ex. correct
1	A.L.	89	15	3	3	3	4
2	B.M.	87	17	3	2	3	2
3	C.T.	102	12	3	2	2	3
4	D.A.	79	11	3	2	3	3
5	F.R.	47	23	2	2	2	2

6	G.M.	52	11	3	2	3	3
7	I.D.	64	17	3	3	3	3
8	T.C.	98	16	3	2	2	3
9	M.F.	65	22	3	2	2	3
10	M.O.	85	12	3	3	3	2
11	N.D.	80	10	3	3	3	2
12	O.G.	128	24	3	3	3	3
13	P.O.	43	14	4	2	2	2
14	R.S.	62	16	3	2	3	4
15	S.A.	71	25	4	2	3	3
16	M.P.	120	25	2	3	3	2
17	T.G.	80	12	3	2	3	3
18	T.P.	85	32	3	3	3	3

Chart 3 The results of initial testing of the experimental group

Nr. crt.	Subjects	Sample 1 Ex. correct	Sample 2 Ex. correct	Sample 3 Ex. correct	Sample 4 Ex. correct	Sample 5 Ex. correct	Sample 6 Ex. correct
1	V. K.	90	22	3	3	3	4
2	T. L.	92	18	4	3	4	4
3	P. L.	123	12	4	4	4	3
4	S. P.	88	24	4	3	5	3
5	C. P.	64	17	3	2	3	2
6	S. M.	84	18	4	4	3	4
7	I.A.	85	12	5	4	3	3
8	B. I.	70	14	4	3	3	3
9	F. N.	85	24	4	3	4	4
10	M. D.	127	35	5	4	5	4
11	B. A.	103	24	4	5	4	5
12	L. D.	62	8	3	2	3	3
13	C. C.	64	12	3	4	3	3
14	S. A.	88	36	5	4	3	4
15	T. A.	42	10	4	3	3	3
16	D. D.	42	12	3	2	3	3

17	C. A.	54	12	3	2	3	2
18	O. A.	130	20	4	3	3	4

Chart 4 The results of the final testing of the control group

Nr. crt.	Subjects	Sample 1 Ex. correct	Sample 2 Ex. correct	Sample 3 Ex. correct	Sample 4 Ex. correct	Sample 5 Ex. correct	Sample 6 Ex. correct
1	A.L.	98	19	4	3	3	4
2	B.M.	100	20	4	2	4	3
3	C.T.	108	14	3	3	3	4
4	D.A.	93	17	4	3	4	4
5	F.R.	60	25	3	3	2	3
6	G.M.	77	14	3	3	3	3
7	I.D.	65	19	4	3	4	3
8	T.C.	102	16	3	3	3	4
9	M.F.	75	22	3	3	3	3
10	M.O.	103	14	4	3	4	2
11	N.D.	87	15	3	4	3	2
12	O.G.	135	25	3	4	3	4
13	P.O.	59	18	4	3	3	3
14	R.S.	82	17	5	4	4	4
15	S.A.	75	28	2	3	3	3
16	M.P.	125	29	3	3	3	3
17	T.G.	84	16	4	3	4	3
18	T.P.	90	18	4	3	3	4

Chart 5 The results of the final testing of the experimental group

Nr. crt.	Subjects	Sample 1 Ex. correct	Sample 2 Ex. correct	Sample 3 Ex. correct	Sample 4 Ex. correct	Sample 5 Ex. correct	Sample 6 Ex. correct
1	V.K.	145	32	4	4	5	5
2	T.L.	188	25	5	4	5	5
3	P.L.	150	16	5	4	4	5
4	S.P.	124	33	4	5	5	5
5	C.P.	86	18	3	4	3	4
6	S.M.	110	16	5	5	3	4
7	I.A.	97	18	5	5	4	4
8	B.I.	98	18	4	5	5	4
9	F.N.	95	34	3	4	5	5
10	M.D.	178	44	5	5	5	5
11	B.A.	109	29	4	5	5	5
12	L.D.	81	12	4	4	3	4
13	C.C.	88	14	4	5	4	4
14	S.A.	115	50	5	5	5	5
15	T.A.	52	10	3	4	4	3
16	D.D.	65	18	4	3	3	3
17	C.A.	88	19	3	4	3	4
18	O.A.	135	26	4	3	4	5

Discussion

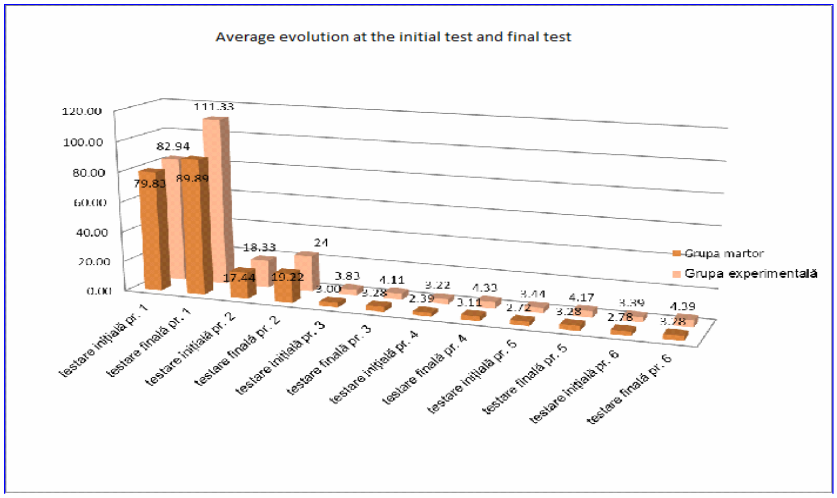

Fig.1 Graphical representation of the evolution X at the two testing experiment

By centralizing the results of the two tests, both the experimental group and the control group, and applying statistical pointer arithmetic, we obtained results highlighted in the chart above.

It is worth mentioning that the two groups, the control and experimental were, at the time of the experiment, relatively equal and value, and after the training program applied experimental group notice a positive development more meaningful it to the control group

Thus, the control sample 1 juggle feet - keeping the ball in the air by successive blows executed alternately with both feet and thighs, given that after initial testing, the two groups showed average results relatively close,

79,83 repetitions control group 82,94 repetitions and experimental group, so a difference of only 3,11 repetitions, after applying the model methodical training on subjects, they, after the final evaluation have reached an average 111,33 outcomes repetitions, compared to the control group, which recorded an average of 89,89 repetitions correct.

The difference between the two environments to final testing is correct repetitions 21,44.

Thus we note that the experimental group achieved a progress of 28,39 repetitions from initial testing to final versus control group whose progress is only 10,06 repetitions.

The sample number 2, jugglers head - keeping the ball in the air by successive blows to the head, where the two groups have followed the initial testing results mean relatively close, 18,33 experimental group and 17, 44 repetitions control group, the final testing this difference became greater, because the control group averaged 24 repetitions final, and the witness of correct repetitions 19,22.

If after the initial assessment, the difference between the two groups was only 0.89 repetitions, after final testing it was 4,78 repetitions.

Hitting five consecutive balls, placed on the 16 m line toward the gate with skillful leg, in the two groups were maintained as a value close to the end of the experiment, both the initial test and at the end, results of experimental group average of 4,11 is correct executions and the executions accurate control group 3,28, after the final evaluation.

Sample 4, hitting five consecutive balls, placed 11 m to wear foot fumble, the ball must cross the goal line in the air, has also recorded a more significant positive development of the experimental group compared to the control group.

Thus, starting from close to initial testing environments, accurate executions 3,22 experimental group and the control group executions 2,39 after applying the model

methodical preparation for junior D, after final testing, the experimental group progressed correct executions of 1,11 versus 0,72 runs of the control group.

The arithmetic mean of the results of the final testing is accurate executions 4,33 experimental group 3,11 executions and the control group.

The sample number 5 - hitting head pass six balls centered near the goal posts by coach(three balls and three balls left and right), hit the ball making the next point to 11 m, a circle of 3m on goal defended by goalkeeper, results of initial testing of the experimental group was 3,44 correct executions and increased to final testing up to 4,17 executions.

The control group showed a less significant evolution, from 2,72 executions average initial testing, final testing at 3,28 executions.

Last control sample, taking the legs, thighs or breasts bounced a ball thrown by coach from a distance of 10m, a circle with a diameter of 2m -5 executions, known also progress from 3,39 successful initial testing, 4,39 successful, the final testing(experimental group) and from 2,78 executions correct initial testing, 3,28 to successful final testing (control group).

If the difference between the two groups is 0,61 executions correct initial testing, it increases the successful final testing 1,11.

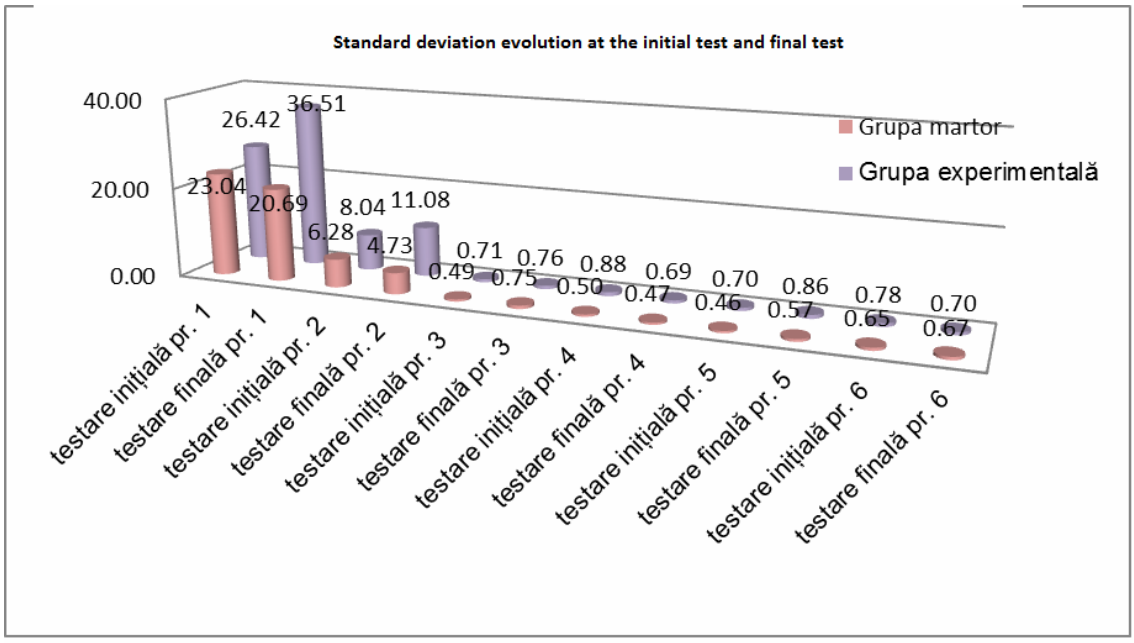

Fig.2 Graphical representation of the evolution S at the two testing experiment

In terms of standard deviation (S), it is based on the calculation of individual values of each case and the average value of the entire sample.

We observe, for the first two control samples, a quite significant amount of S, which means that the average less than two corporate characterized tested (between 20% -36%).

For samples 3, 4, 5 and 6 standard deviation gives us a clear picture of the spread value of individual comments to media comments.

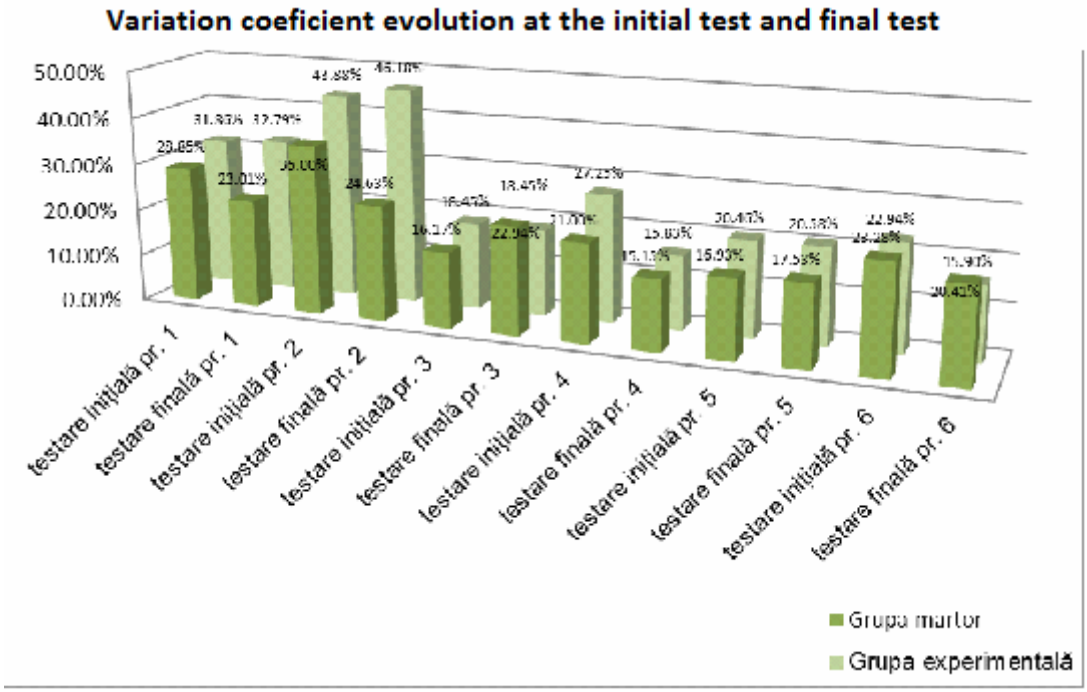

Fig.3 Graphical representation of the evolution of the two tests Cv experiment

In terms of statistical indicators CV (coefficient of variance) mention that unfortunately both experimental group and control group, are not homogeneous, which highlights that at this age (12-14 years old), children do not have the same qualities sports athletic same values in each of the cases analyzed.

Although this indicator has improved from initial testing to final testing, all results indicate the two groups included in the experiment, caterers less homogenous or lack of homogeneity.

Conclusions

Preparing football player at the most important factors of training, along with physical training,-technical training patterns is achieved through technical training, technical and

tactical; also mental and psychomotor accumulations to allow him a promotion to senior teams and constant evolution in the game.

Development and implementation in a systematic manner, the model for technical training in children aged 12-14 undergoing the experiment led to improved technical capacity of children.

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Aspects on the evaluation of morphological and functional indicators in physical education and sport

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In the physical education activity as well as in the sports training it is necessary to evaluate some morphological and functional indices such as:

Morphological indices

The assessed morphological indices can be grouped as follows: longitudinal dimensions (height, lower limb length, upper limb length), transversal dimensions (range, biaxial diameter, thoracic diameter, bitrohanterian diameter, sagittal dimensions (thoracic anteroposterior diameter), circular dimensions (thorax perimeter , the perimeter of the abdomen, the perimeter of the arm, the perimeter of the forearm, the perimeter of the hip, the perimeter of the thigh, the perimeter of the calf), somatic mass dimensions (body mass and body composition), physiometric values (torsional force of the flexors of the hand, scapular belt and lumbar lumbar extensors).

Functional indices

In physical education and sports, it is necessary to determine functional indexes such as: blood pressure, heart rate, cardiac output, maximum oxygen consumption, etc.

Blood pressure

Blood pressure is the force with which blood exerts pressure on the walls of the arteries through which it flows. It is influenced by age, sex, the level of adaptation of the body to physical effort.

In determining the blood pressure value, we will identify two values: the systolic blood pressure (highest value) given by heart contraction and the diastolic blood pressure (the lowest value) given by heart relaxation.

According to report no. 7 of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure, normal blood pressure is a 120/80 mm mercury column.

Cardiac frequency

Cardiac Frequency is the number of heart rate cycles per unit of time.

The heart rate at rest, at adult age, varies between subjects, between 60 and 100 per minute. It is more rapid in young subjects and slightly diminishes in older subjects. Heart rate is accelerated in stress or stress during the stimulation of the sympathetic nerve and the action of certain hormones such as catecholamines on the sinus node. It slows down by stimulating the pneumogastric (vagal) nerve, the tone of which prevails at rest.

Heart rate at rest may be abnormally slow, with bradycardia recording less than 60 cycles per minute. Extremely fast heart rate is called tachycardia, in which case more than 100 cycles per minute are recorded.

Cardiac output

"Cardiac output is the amount of blood that your heart puts into circulation within one minute.

Systolic flow (called flow-beat or volume-beating) is the amount of blood pumped by the heart at a single contraction.

Cardiac output is equal to the product of heart rate / minute and systolic flow. At rest, the systolic volume is 70-80 ml, and the heart rate is 70 beats / minute. Thus, it is possible to calculate the cardiac output that a male adult at rest is 5-5.5 l / minute. Relative to the body surface, the cardiac output is 3-3.2 l / m2 / minute, a value that also bears the name of the heart index. " (Zamora, E., Kory, M.M., Zamora, D.C., 1996)

Maximum oxygen consumption (VO2max)

VO2max can be determined using the direct and indirect method.

Using direct method and open-circuit apparatus, Zamora, E., Kory, M.M., Zamora, D.C. proposes the following formula for calculating the oxygen consumed:

"C.O.M. = $\frac{\text{V.P. x C.O.A.A. - C.O.A.E.}}{100}$

where:

C.O.M = consumption of oxygen / minute

V.P. = pulmonary ventilation / minute

C.O.A.A. = the amount of oxygen in atmospheric air

C.O.A.E. = the amount of oxygen in the expired air "

Pulmonary ventilation is a physiological process of air circulation through the airways and lungs, by the rhythmic alternation of inspiration and exhalation. (Http://www.definition-of.net/definitie-ventilatie)

The subject is subjected to an effort of increasing intensity (step effort). There are two test methods:

"Maximum Beat Method". This method starts at 70-100W (or 1W / kg body) and then increases the load by 50W every 3 minutes until the momentary exhaustion of the subject. VO2 max is reached when it is found that although the effort increases with one step, oxygen absorption remains constant, the effort becoming anaerobic. For capillary lactate determination, at each intensity step, as well as 15-30 minutes after the end of the effort, it can be harvested from the finger pulp.

The "maximal" method. This method involves the use of a submaximal effort, the effort steps of 6 minutes. If constant steady state oxygen and pulmonary ventilation values are recorded during the last 3 minutes of the exercise step and no more than 8 to 10 pulses / minute of heart rate are observed, the conditions of the rhythm are considered to be met and may be changed to a higher level of effort. Ending the effort takes place at the stress level at which the conditions of the ergostasis have not been achieved. Oxygen consumption is the one reached in the last step of the effort at which ergostatic conditions were achieved and represents about 80% of the VO2 max.

VO2 max values in male non-enrolled adults are about 3000 ml O2 and 2000 ml O2 in her female. The VO2 max increases with age, reaching peak values at 18 years for boys and 16 years for girls, decreasing after age 25: 87% at 35 years, 78% at 45 years, 71% at 55 years old, 65% at 65 years old. " (Zamora, E., Kory, M.M., Zamora, D.C., 1996)

At athletes, VO2 max depends on the nature of the effort, with the highest values in aerobic sports. At Athletics and Ski performance athletes in baseline samples, VO2 max values of 80 ml / kg body were recorded, approximately double to non-trained subjects of the same age.

Anaerobic capacity. TTR (total work performed) for 10 seconds, 20 seconds, and 45 seconds for the cycloergometer anaerobic exercise.

To perform this test, the cycloergometer is set at 90 rpm, applying a load of 0.4 kg / kg (kgc is kilogram body) to boys and 0.3 kg / kg in girls. The frequency of pedal cycles is recorded on each proposed unit of time to be followed, then the number of cycles is multiplied by the value of the load thus obtaining the mechanical work in kg / TTR. The athlete performs a short heating in order to mobilize the metabolic elements and accommodate the cyclogergometer, and then performs the two-stage test:

- maximum pedaling counting the number of turns performed every 5 seconds separately. The maximum wattage for 5 sec is the maximum anaerobic power. The first 5-10 seconds correspond to the assessment of ATP-CP-dependent power / speed qualities in terms of quantity (muscle reserves) and quality (energy transfer rate), as well as the mobilization of as many neuromotor units as possible. The 15 sec TTR expresses the possibility of maintaining the working intensity at speed (alactacid anaerobic phase) and is dependent on the sporting form;

- after about 1 hour, it is repeated for 45 seconds, evaluating the maximum exercise potential under lactic acid accumulation conditions (lactate anaerobic phase), thus the anaerobic power with greater significance in short and medium endurance sports. The TTR obtained in both tests relates to body weight and compares with the biological model according to the sport practiced (sex, age and state of play.)

The following formulas are used to interpret the data obtained from anaerobic tests:

Watt max. Excellent (100%) = 335 + 7.66 x Mc (Mc = body mass)

Very good (95%) = 319 + 7,27x Mc

Good (84.2%) = 283 + 6.44 x Mc

Medium (70%) = 236 + 5.35 x Mc

TTR 10 sec Excellent (100%) = 15.79-0.055 x Mc

Very good (95%) = 15-0,052 x Mc

Good (84.2%) = 13.29-0.046 x Mc

Medium (70%) = 11.02-0.038 x Mc

TTR 20 sec Excellent (100%) = 30,47-0,11x Mc

Very good (95%) = 28.96-0.015 Mc

Good (84.2%) = 25.64-0.093 x Mc

Medium (70%) = 21.33-0.077x Mc

TTR 45 sec Excellent (100%) = 56.83-0.0207x Mc

Very good (95%) = 53.99-0.196x Mc

Good (84.2%) = 47.85-0.174x Mc

Medium (70%) = 39.78-0.145x Mc

In sports training it is especially important to determine and monitor morphological and functional indices, because only in this way sports training has a scientific character. Depending on the results obtained, corrections of the training factors can be made, as well as the effective direction of the intensity of the training, the volume and the complexity of the specific means.

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The game as a learning process and rehabilitation therapy

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Abstract

In education for children with mental disabilities, discoveries at the psychomotricity level are a prerequisite but also a result of school learning. Lucian Blaga said that "the wisdom and the love of the child is the game". The game as a way of linking the subject to the world of objects and relationships is the primary form of human action. After the age of six, the game meets the requirements of learning, transforming, modifying mental structures and functions and organizing them according to the intellectual activity model. Investigations on play behavior in children with mental disabilities have led to the establishment of indicators that are considered as organizational factors of playful behavior and allow the organization of their personality. The game has both an educational and a driving force on the psychomotor development of the mental deficient, the game-education assertion needs to be supplemented with game-therapy, the game in this case having two functions: psychomotor education, but also recuperative therapy.

Keywords: game, disability, psychomotricity, therapy, recovery, personality, integration

I. Motivating the choice of theme

In education for children with mental disabilities, discoveries on the psychomotricity level are a prerequisite but also a result of school learning. It suffices to recall that the formation of the bodily scheme is a condition of the individual's entire mental life, and the schemes by which the child assimilates or accommodates to space and time are movement patterns that are internalized by thinking operations. Playful learning and creative learning seem to be the real human forms of learning and work, and learning by playing has effects that seem incredible only because learning through the law of minimal effort has become the most common, most common learning. The main purpose of this paper is to broaden the concept of rehabilitative and educational technologies that influence the psychomotricity of

the deficient child, including assimilation and adaptation of the means and methods of intervention used in the field of play.

II. The game as a learning process and rehabilitation therapy

One of the most important forms of a child's manifestation is the game. Lucian Blaga said that "the wisdom and love of the child is the game." Typically, such activity is considered to arise from the child's need to move - a way to consume energy - or have fun; a pleasant way of passing time. The views on the approach are different: some considered them as intellectual activity, others as a physical activity, and others as a pleasant, enjoyable, fun activity. This explains why today's terminology about games is rather vague, ambiguous. This amalgam of opinions has generated many educational shortcomings. The game as a way of linking the subject to the world of objects and relationships is the primary form of human action. It is the result of a subject-world coexistence and is generated as an act of emotional stimulation. During a certain period of life, the relationships with objects are established within the game. The game is a form of organizing cognition and, implicitly, a way of organizing knowledge.

Intimate modes of play are, in essence, the mechanisms of learning. The palpation of objects, their manipulation, their displacement (even by throwing) mean, in essence, the elaboration of space and time and, to a different extent, of mental time and space. As a game organizes and develops cognitively, it loses its share of the strict elements of knowledge and derives a form, an objectual relationship with playful motivation, and promotes learning.

After the age of six, the game meets the requirements of learning transformation, the modification of mental structures and functions and their organization according to the model of intellectual activity.

Game theories, in most of them, have highlighted one aspect or another, without seeing the intellectual implications, without considering the game as an action of knowledge, organizing knowledge. All these theories have approached play in various psychopedagogical perspectives, considering play as an autotelic activity, opposed to work (IM Baldwin), as an activity that uses the child's energy surplus (Herbert Spencer), as a reproduction of an useless action in the present (Stanley HalI), as an autotelic activity that prepares the child for work (Karl Groos), as a means of self-realization (Eduar Claparède), as an activity that engages in any function without purpose (Charles Buhler) as an instrument of self-formation, as a self-affirmation (Jean Chateau) and many other opinions debated in the literature on game issues.

Special psychopedagogics classics have given the game a central role in the educational-therapeutic process, a discriminative symptom in the diagnosis. Édouard Séguin states that "the idiot who is playing is no longer an idiot" or that "the idiot playing is worth another name."

It is also no coincidence that children with mental disabilities who have language disorders are children who play less. Educational game is given a central place in the orthopedics of character traits, by predominantly analyzing the child's activity in different forms of the game. Starting with the psychoanalysis tests in the third decade of the 20th century, the tendency of systematization of game therapy techniques is intensified.

III. The game in the recovery process

The game remains for children with mental disabilities the permanent form of the recovery process, because this is a unitary structure between stimulus-strengthening-response-modification. If the game in general has both a predictive force and a propulsion force on the development of the personality of the mental deficiency, the game-learning assertion must be complemented with game-therapy. The game is learning and rehabilitation therapy. The immediate objective of the game is educational, but the ultimate one is therapeutic, is the improvement of the primary deficiency of the child with mental disabilities, that being cognitive immaturity. The game is a form of psychotherapy that is achieved through educational methods and procedures, capitalizing on the therapeutic valences offered by the content of the curriculum developed for this category of handicapped, to recover the mentally deficient child within its limits.

Schemes exercised in the game are schemes on which the structures and functions of the personality are based. We are interested in the degree of personality organization that the game generates, starting with the organization of the ego (functional games) and ending with the organization of the logical categories and the personality structures; playful action and psychomotor behavior; ludic action and mental organization; play activity and organization of affective-motivational processes; ludic action and organizing the relational structures of personality.

Based on such a conception, we can speak of a playful behavior, which can be defined by the fundamental neuro-psychological, affective-motivational and relational mechanisms organized according to the necessity for personality development. Investigations on play behavior in children with mental disabilities have led to the establishment of indicators that

are considered as factors of organizing the play behavior, allowing the organization of their personality.

IV. Game therapy via integrated rehabilitation complex therapy

The game, conceived as motor activity, learning and therapy, is part of the new trend in teaching-learning methods, which aims to transform the role of the therapist teacher and to give new opportunities to the mentally deficient child. The game begins to occupy an increasingly defined place in the category of methods, techniques that develop the ability to observe, analyze and operate with logical operators, in a word, in the category of techniques that develop learning and development skills.

The implications of the game in the therapeutic complex are extremely high, giving it a **sui generis** methodological "status". Its complexity is generated by the fact that it can be conceived as a method of learning, therapy, or as a method of psychosocial investigation (also called **ludens pedagogy** or **pedagogy of creativity**), with a stand-alone status and complementary to the pedagogy of work, therapeutic psychology, as well as ethnoludology.

The model (from the table below) is structured in two compartments: the complex of game psychotherapy, game learning programs and application domains.

The first compartment refers to the complex of therapies designed as educational acts, as therapies that can use the content and methodology specific to programs for mental deficiencies education. In each category of therapy, the subcategories of appropriate therapeutic techniques are also included.

The second compartment refers to the programs for learning by game corresponding to each category of therapy and each technique within these categories, only the representative programs used in the psycho-pedagogical practice being mentioned in the table.

The model of complex rehabilitation therapy

SOCIAL MODERATOR CONTEXT		
SCHOOL		
ACTION OF INTERGRATED EDUCATIONAL THERAPY		
PSYCHOTHERAPY THROUGH GAME	INTEGRATED PROGRAMS	LEARNING PROGRAMS

I. Behavioral psychotherapy		I. Behavioral psychotherapy
A. Positive conditioning		A. Positive conditioning games
B. Counterconditioning		B. Games for voluntary inhibition and self-control of motor reactions
C. Operational conditioning		C. Games for operative conditioning
D. Modeling or learning by observation		D. Visual games for learning by observation
II. Psychomotricity therapy		II. Psychomotricity therapy
A. Motor deficiency therapy		Game sets based on the principles and techniques of motor deficiency therapy
B. Motor instability therapy		Game sets based on the principles and techniques of motor deficiency
C. Motor fulfilment disorder therapy		Game sets based on the principles and techniques of motor disorder therapy
III. Cognitive psychotherapy		III. Cognitive psychotherapy
A. Pre-learning		1. Sensor-motor games a) preliminary, for learning basic gestures of motor behavior, imitation of adult gestures; b) learning of basic notions about the properties of different goals; c) manipulation of educational objectives; d) formation of perceptual-motor structures and behaviors, orientation-organization – spatial-temporal structure 2. Perceptual motor games for offset purposes (Marianne Frosting Program) 3. Motor perceptual games (Jacques Dubosson) 4. Exercise - games (Jean Piaget) 5. Functional games (Eduard Claparède)
B. Learning		1. Games for learning fundamental concepts 2. Specific learning games organized in the system
C. Post-learning		1. Consolidation games, completion of knowledge 2. Entertainment games 3. Logical and social games
D. Development		1. Games to develop attention, memory, etc. 2. Games for the formation of mental representations: associations, judgements, combinations
IV. Psychotherapy of development	INTEGRATED COMPENSATION	IV. Development psychotherapy
A. Kinesitheraphy – motion therapy		1. Motion games to develop motor skills 2. Games for the formation of perceptual-driving behavior of body schematics, laterality, orientation – organization – spatial-temporal structure 3. Games for manual skills and basic gesture formation
B. Ergotherapy		1. Manipulation games 2. Construction games 3. Assembly games
C. Expression psychotherapy		1. Graphics games 2. Games with color and shapes 3. Rhythm games 4. Musical games
V. Group psychotherapy		V. Group psychotherapy
INTEGRATED PERSONALITY SOCIAL INTEGRATORY CONTEXT		

V. Integrated personality. Social context.

In the generally accepted assertion, socialization means the assimilation of social experience (knowledge, norms, roles, ideals), the formation of productive, organizational capacities, conceptions, opinions, personality traits, social intelligence, development of values, needs, motives and personal or collective aspirations. These capacities can be developed for children with mental disabilities through play activities.

Socializing includes both motor organization and enrichment of cognitive content, affective modeling and, in general, the broad acceptance of human experience. The language, the logical-formal operations, the knowledge and the practical ways of acting, the rules of behavior are all within its sphere.

In psychology, the socialization process is seen as an essential aspect of personality development. Within it, the issue of socialization has been highlighted particularly since the twentieth century, the research being driven by Freud's theories. Significant personalities, such as Mead, Wallon, Vítgotski, Piaget, have been involved in their work on aspects regarding the child's socializing. Mead's research has highlighted the role of human interactions, language and attitudes, in the formation of the "ego". He considers that role-learning, when the child identifies itself with a certain social status, with its goals and norms, attitudes and expectations, is the most important condition for the formation of the "ego".

The process of socialization, the use of playful activity in this process, the factor of the school environment and the individual factor influence the formation of a social ambience and where the child with mental disabilities can develop his personality: he learns to imitate, identify and learn roles he plays in ludic context, forms internal control mechanisms, self-image, shapes with the help of the game interpersonal relations of sympathy, dependence, dependence.

The mechanisms of the social learning process, such as imitation, identification, role-learning, self-image formation, self-control processes, sympathetic conditions, dependence, have been studied by psychologists and sociopsychologists such as Logan, Olmsted, Schwartz, Stevens, Maccoby and D. Cambell. The investigations to date on the socialization process have drawn attention to the priority of interpersonal relationships among ways of influencing the child's mental development.

The school institution in which children with mental disabilities are taught must mark a major change, requiring the child to form new relationships with adults and other children of the same age and with the same psychological development issues. Every child must learn

"life in common", learn the "equality" of how he is treated by the adult, learn to cooperate, acquire a relative autonomy, and relate to another.

Through the variety and nature of the activities proposed to the child, the school institution contributes to the child's adaptation and socialization. To stimulate the social development of the child, namely the skills of association and cooperation, dramatic games play a special role. These games intensify the maturation of children even more so they are closer to real life. Real-life games announce the adult roles of the future. Thus, games such as "Family," "Doctor," "Shop," help children to clarify their images of the world they belong to. The roles interpreted suggest social skills, introduce them into the real social atmosphere. To achieve its goal, the teacher must help children with mental disabilities organize the class so that they suggest their own environment for each activity.

Children's fantasy can be encouraged by promoting imaginative games. Thus, through miniatures, children can imagine real figures. In the "Soldiers" game, the use of plastic soldiers allows imagination of various game strategies, as miniaturization allows them to play "Farm".

By offering the possibility to improvise, dramatic games develop the child both socially and emotionally. In stimulating the child's social development, together with dramatic games, imaginative games or spontaneous play, particularly useful are stories read and discussed with children, books with images of social life, picture stories, and albums of children's work. Regardless of the central focus of an activity, the school setting is a social environment by excellence.

Speaking of the aspirations of post-modern education, Gough (2001) specifies that it is necessary to recognize and stimulate the development of cognitive constructs whose origins are in the social sphere, focusing ourselves on their socio-genetic process. She argues that a (post) modern science education is needed, one that is democratic and recognizes the social constructs of the problems of children with deficiencies.

Given the fact that an optimal education is not one that cultivates his qualities, how can the teacher achieve an increase in social development in the students he guides in his class? Considering his role as a facilitator of ludicrous knowledge, the aim of the teacher is to teach students how to think. He must undo their thoughts, awaken their curiosity, ignite their minds, because man does not become, he perfects himself.

Secondly, the tasks proposed to the students must be playful, attractive and must stimulate creativity. In support of this goal, Negreţ-Dobridor (2001) points out that play and creation are our deepest sense. Playful learning and creative learning seem to be the real

human forms of learning and work, and bringing games into the learning process has effects that seem incredible only because learning through the law of minimal effort has become the most common, most usual learning.

VI. Conclusions

Does a physical education teacher deserve to deal with psychomotricity education through the playful activity of the mentally deficient child? We think so.

The game has both an educational and a driving force on the psychomotor development of the mental deficient, the game-education assertion needs to be supplemented with game-therapy, the game in this case having two functions: psychomotor education, but also recuperative therapy.

Recovery of psychomotricity is an important method used in the therapeutic field, occupying an important place in the system of recovery methods in special psychopedagogy. Its importance is great for the deficient child because it considers the body as having a double aspect: a tool of action on the world and the instrument in relation to another.

The stimulation of psychomotricity through the game leads to the stimulation of activities at the respective level of deficiency, affectivity, relationships, the tendency to manifest autonomy, independence, which is not realized in the physical education lesson, which distorts education in a rigid form into parts and links, and which is more relevant to motor development and skills.

Another aspect of the playful activity is that of the competitiveness of the game: expressing attitudes, competing behaviors, self-stimulation, proving individuality, and force. It is found that, in mental deficiencies, the most important element in the assessment of others and self is physical strength and athletic qualities. These attributes are manifested in the game, which thus becomes a state of affirmation. Most of the deaf people want to play deeply, the play activity helps them to become competitive, which helps them overcome the situation of being deficient and being marginalized.

Concluding, we can say that play activity leads to the education of psychomotricity, which is a basic education in the school, the game being for mentally deficient people a permanent means of the recovery process, because this method constitutes a unitary structure between stimulus - cure - response - modification.

The play activity meets the learning requirements, because the intimate mechanisms of the game are the mechanisms of learning.

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Study on biomechanical, technical and methodological analysis in learning of the salt element before returned with 360º return for support to brakes at the parallel

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Abstract

Currently Artistic Gymnastics develops much on the continued growth of the difficulty and complexity of the technical elements of the composition and in the exercises.

Virtuosity in performing the exercises is also a requirement that comes to balance between the technical quality and the artistic composition especially at ground exercises.

Artistic gymnastics is a sport known as fairness and aesthetic beauty.

The movements they perform athletes must register between different parameters amplitude, speed, rhythm and tempo, degree of tension or relaxation, coordination, respecting strictly axes and plans.

Beauty, in the gym, is a phenomenon which is achieved by ample several shapes and times .

We believe that training specialists in the field alongside artistic - are all means choreographic, musical, stimulating creativity whose purpose is focused on driving skills executed with a high degree of expressiveness able to convey a message to viewers and juries referees.

Through the "Urzică" element the exercise on the parallel apparatus increases in value and spectacularity and the final mark in the case of errorless execution will certainly be higher.

Keywords: *amplitude, coordination, body expression, virtuosity*

Introduction

Discipline with a well-defined status in the constellation of Olympic sports, sports artistic gymnastics is an important component of the human life of today's society, with a special contribution to the formation and improvement of the human being. Also, sport gymnastics through the extent it has taken over the last decades, contributes to the

establishment of friendship and collaboration relationships between people, which characterizes a modern and civilized society.

The increasing popularity it has gained among the countries of the world and the importance it attaches to the struggle for world supremacy in this field has made sport artistic gymnastics one of the most important sports disciplines of our time .

Motivation of choosing the theme

The present research aims to penetrate into the intimacy of the creative process of an original technical element, parallel, executed in the world premiere by a Romanian gymnast.

The Technical Commission of the Male (CTM) of the International Federation of Gymnastics (FIG) has approved this technical feature leap forward stretched 360º turn in support on the arms to the parallel under the name of "Urzică" after the name of the athlete who executed it for the world premiere at a competition official - FIG.

This technical element is passed to the latest edition of the International Gymnastics Championship Men's Score Code, at p. 106 with no. 44 and 45 (Annex 1).

The hypothesis and purpose of the work

Applying an objective algorithmic system based on the principles of determination, a sample system and control rules based on feedback mechanisms that provide at any moment the level reached in learning, applying the most appropriate methods and means, along with an optimal strategy, we will be able to ensure the learning and perfection of one of the elements with a Romanian "patent" at the parallel paradigm, in the present: jump forward 360º turn of support in support on the arm - element "Urzică".

A modern strategy will have to take into account the individualization of control, coach - sports co - operation, correlation of the physical and technical training activity.

This paper aims to achieve an optimal alternative to learning and improving an element of superior difficulty at the parallels. Through the experiment and the results, it is a point of reference at the fingertips of interested specialists.

Parallels - overview

Parallel drills consist mainly of elongated and flight elements connected to each other, executed dynamically above and below the bars, including longitudinal support positions on a bar. Elements of force are also permitted, but their presence is not encouraged by regulation.

The device, with its two parallel bars, provides very good and reliable support that allows for a wide range of movements. An analysis of the Male Score Code shows us that the parallels have the most diversified technical content in the six samples of the polyatlon. In the last edition of the Scoring Code - FIG, the technical content of the parallels is structured in 11 groups of movements, in which more than 250 technical procedures have been listed in the boxes.

Particular technical specification

The technique of parallel movements is determined by several factors:

- the acyclic and complex character of the movements;
- the construction of the device with the specific features of the body supports;
- the "movement of the movement", the particular character of the movements, the specific style of body and segmentation.

The precision of rational technique of execution on a scientific basis allows the choice of the most appropriate methodical learning methods of a movement, as well as the determination of the causes of mistakes that occur in the process of learning.

The technical content of the parallels is varied and complex and certainly the richest in the male polyatlon. In this regard, only basic technical aspects that are directly related to the specificity of the forward leaning element with a 360º turn in support on the arms, also called the element "Urzică", will be addressed.

Technical description of the technical element

From transverse support, it swings back and leans forward with a 360 ° turn in support on the arms - value element "E" and from support in support element "F"

This technical element is special and complex since the body of the performer must simultaneously perform two complete 360 ° turns in two different planes, namely a turn around the transverse axis and a screwing around the longitudinal axis of the body. In addition to this complexity, the technical leap forward feature stretched 360º in support on the arms called the "Urzică" element is very difficult because the preparatory actions are executed in the supporting position. It is known that the upper limbs have a limited capacity to manifest the force in this position, especially when the body of the gymnast moves at an accelerated speed.

Muscle effort - Forces - muscle groups

In the complex conditions of executing the forward leaning element with a 360º turn in support on the arms called the "Urzică" element, the gymnast's locomotor system and especially its ability to develop muscular effort is particularly demanded.

In the preparatory action phase, in this case, the balance in support of the gymnast's muscular work is carried out in a surrender mode. This regimen "is characterized by a great muscle economy, allowing athletes to develop muscular effort by 50-70% more than in overweight."

Probably this is one of the factors that allow gymnasts to endure enormous efforts. The muscular effort of the gymnast in this phase is mainly focused on maintaining the apparatus, consisting of an action against the force of gravity and centrifugal force.

Internal forces

The main internal force is the muscular force that is active and determines the movement of the body.

In the specific case of executing the technical leap forward, stretched 360º in support on the arms called the "Urzică" element, the muscles of the upper limbs and the scapular-humeral centers are particularly demanded.

These requests are specific to the movements in the supporting position and a dynamic part of overcoming and breaking. Both static and dynamic components are located in the scapular-humeral joint and upper limb muscles.

The static component specific to the support positions is mainly made by the shoulder adductor muscles, the large pectoral, the dorsal, the subscapular, the coracobrachial, the small round, the brachial biceps and the brachial triceps (short section).

Also, the elbow extenders (triceps) work statically maintaining the perfectly stretched upper limbs.

External forces

The main external force that acts permanently on the whole body is the force of gravity. In rotational movements the force of gravity can be positive at the moment of descent and negative when climbing. During the flight phases of the various movements the force of gravity always acts negatively.

Also, another important external force is the reaction force of the two-component support: static and dynamic.

The static reaction is equal to body weight and counter-directed. The dynamic reaction is given by the pressure exerted on the support by a body possessing acceleration in accordance with the third law of mechanics, which states that each action corresponds to an equal and opposite reaction. The dynamic reaction force is decisive in executing the technical leap forward lever with a 360º turn in support on the arms also called the "Urzică" element.

Theoretical model for the learning of the salt element before running with 360 ° return to hand brake support

The forward leaning element with a 360º turn in support on the arms also called the "Urzică" element requires from the start the following requirements regarding the level of accumulation of gymnasts aspiring to achieve it:

- a remarkable explosive force in the arms;
- Perfect knowledge of the leap forward stretched out of support support;
- Perfect knowledge of the forward leap out of support in the arms;
- affinity, ability, technique for screwdriving performed at forward movements;
- a special sense of the bars and the parallel;
- the perfect knowledge of the balance in support;
- superior mastery of the elements preceding the leap forward, but also those that follow;
- the athlete must be in possession of a strong scapulo-humeral belt;

System of Samples and Rules for Learning Control

The system of control samples to give us a real picture of the level attained in learning at any time, while respecting the objective principles of determination, will include:

1.Probe of general physical training;

2.Probe of special physical training;

3.Project preparation.

Organization and derulation of the experiment

For objective reasons, the characteristics of high-performance sports, the research conducted did not disrupt the preparation with precise performance targets at major competitions in the international competition calendar in 2017.

In this vision, the learning and refinement of the new element in the parallel was planned for nine months, namely January 18 (pre-test) until October 23, 2017 (post-test),

when the practical check of the execution of the new element in the "Salamonov Memorial" international gymnastics contest in Maribor (Slovenia).

Research methods used

A. Documenting

- Study of bibliographic materials of general and interconnection character;
- Study of specialized literature: books, magazines, FIG or FRG bulletins;
- Study of video competitions;
- Participating and recording important aspects of competitions.

B. Investigation methods

- Pedagogical observation;
- Technical study and analysis of video recordings;
- The pedagogical experiment.

C. Methods of data processing

- Graphic representation method;
- The logical method.

Element learning steps

The first stage begins on January 18, 2017 when the initial testing was done. This first step had the following objectives:

- formation of the representation of the new original movement;
- the formation of the basic mechanism of the new technical element and the first tests under relieved conditions;
- Improving specific physical qualities to support parallels.

The first stage ended on February 22 after two weeks of work in which the element was backed by 27 meetings of 20 minutes. In total it has been technically worked for this element for 9 hours. Physical training was not included in this volume of 540 minutes.

Stage-II lasted 7 weeks in which 4 special weekly sessions of 25 minutes were made for the original item, totaling 12 hours of technical training. The stage ended on July 20, 2017, followed by a two-week break on the seaside for rebuilding.

The training resumed on August 1, 2017, and after a period of 15 days in which progressive work was done, volume and intensity began the third stage and the last stage of the element.

Stage III was 8 weeks with 2 weekly 20-minute sessions, with a total workload of 10 hours.

The experiment ended on October 18, 2017, when final measurements (post-test) were made.

The practical verification of the technical feature of leap forward stretched with a 360º turn in support on the arms, also called the element "Urzică" to the parallel in the exercise, was made on 23 October 2017 at the international competition in Maribor (Slovenia)

The final stage lasted from August 16, 2017 to October 18, 2017, and aimed at:

- executing the technically learned element in isolation;

- execution in combination and in full exercise of the technical element jump forward facing 360º in support on the arms also called the "Urzică" element;

- improving specific physical training.

Means used

1) At the parallel, back to balance, jump forward with landing on a mattress pushed by the coach

2) Flip forward to the elastic trampoline or to the 360 ° reversing net with rear landing, aiming to trigger the turn-around as late as possible and doing very energetically.

3) Jump 360 ° from the support on two mattress mats (at the tunnel) placed at the edge of the pit with sponges and landing on the back in the pit (or on a pushed mattress);

4) Jump forward 360 ° from the balance to the parallel to the rear landing on a mattress pushed onto the bar of the appliance (as in figure 1). It is always intended to achieve a smallest deviation from the longitudinal axis of the body (it is drawn on the mattress that pushes the landing on the two bars of the parallel at the working distance).

5) Jumping forward 360 ° with landing support on the mattress tunnel arms.

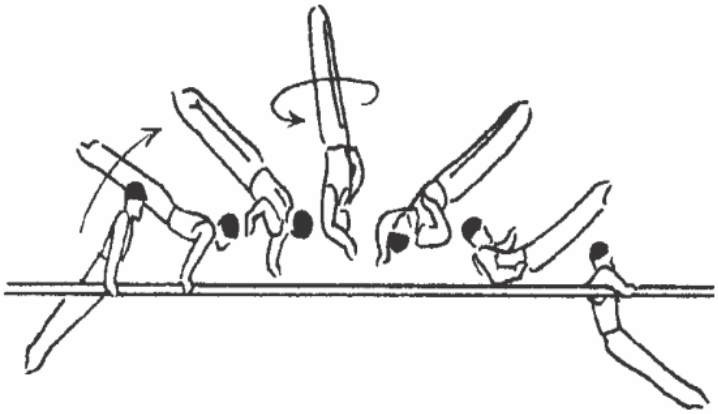
6) Thrust forward 360 ° turn-over support on the arms with protective shielding bars.

7) Straight forward 360 ° turntable support on the arms and the "Urzică" element to the parallel bars without protecting the bars.

8) Throw forward 360º turn in support on the arms also called the "Urzică" element from the combination of pre-elements with the protection of the bars.

9) Straight forward 360º turn in support on the arms also called "Urzică" element in combination with pre-element and postemment.

10) Full Exercise with a 360º turn-back lever in support on the arms also called the "Urzică" element included in the composition.



The salt technical element further furnished with 360° return on hidden support on the parallel "urzică"

Data processing and interpretation

Research conducted to verify the hypothesis had some peculiarities that distinguish it from a pedagogical experiment with a large number of subjects and with a control group that puts at your fingertips the data necessary for a serious analysis.

High-performance sports work with exceptions, with particular cases. In this respect, the present research was done in an individual experiment in the natural conditions of the instructive-educational process that aimed at high performance in gymnastics.

The analysis and interpretation of the data starts from the premise emphasized in the organization of the experiment, ie the practical realization of the original technical element jump forward stretched with a 360º turn in support on the arms called the element "Urzică" to the parallel depends directly on two factors:

a) making a forward leap forward with a very broad flight phase;

b) making a forward-facing 360 ° turn-by-turn jump without deviating from the longitudinal axis.

The comparative analysis of the results of the control samples before the experiment (18.01.2017) and after its completion (October 18, 2017) was made to track the dynamics of the evolution of the two factors during the research.

Conclusions and proposals

Following the completion of the research that focused on making a new, original, parallel element, we are able to draw some final conclusions.

Practical realization of the forward leap forward with 360º turn of support in support of the arms and presentation of this news in the official competitions proved that this technical element can be executed, confirming the working hypothesis.

The approval by the International Gymnastics Federation of the leap forward element stretched with a 360º turn in support on the arms, also called "Urzică", proves the creative vocation of the Romanian gymnastics school.

By penetrating the intimate process of creating renewal, it can be asserted with certainty that without a knowledge base and scientific multidisciplinary information, value performances can not be achieved.

The research made available to the technicians is a well-established technology, effective in learning and improving the forward leap forward with a 360º turn in support on the arms also called the "Urzică" element.

Also, how this element has been addressed can be an example to follow when imagining and learning other original elements.

The research results confirmed the strong relationship between the technical level and the level of physical fitness development. Practically, the jump lengthened element with a 360º turn in support on the arms referred to as the "Urzică" element can not be executed if the level of physical qualities does not have a high degree of specific manifestation.

Through the experiment, we have precisely established control samples and rules that can provide us with objective data, on which depends the achievement of the lean forward element with a 360º turn in support on the arms called the "Urzică" element:

1. The set starting level, the complex drive system proposed, the tests and the control rules that have objectively ensured the rise of learning to be standardized and used as a unique and serious criterion for analyzing the learning activity of such an element.

2. Means and methods used, with more repetitions, in terms of better dosage and awareness could lead to results much closer to the ideal model.

3. The proposed and experienced theoretical model can be a valuable point of reference at the fingertips of specialists.

4. Emphasizes the need to expand this type of research activity in the near future.

5. Finally, I propose that this methodical research activity be continued at a higher level in the following years.

The research as well as the time spent in the exercise of gymnastics entitles us to make some other proposals to improve the training process on parallels on the issues addressed.

They aim at approaching the training with the highest demands on the technical chapter in particular, the "support" mechanisms, the basic movements. Well-balanced, well-balanced, flight-return techniques in different axes require a continuous improvement of the

kinetic, visual, vestibular, dual-function functions of a physical training, made on scientific bases.

Referring specifically to the 360º turn lever in support of the "Urzică" element, we can suggest continuing this experiment and realizing the technical and methodical bases for its improved form, ie starting from support and finishing in support . The item is capitalized in the FIG Score as super F and brings a bonus of 0.3 points.

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