



CONTRIBUTIONS TO THE ASSESSMENT OF THE FORCE DEVELOPMENT DURING THE TRAINING HOURS AT THE LEVEL OF THE FOOTBALL REPRESENTATIVE IN THE HIGHER EDUCATION LEVEL

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Abstract

This research aim contributes to the objectivity and assessment of the strength development during the training lessons by increasing the efficiency in organizing and conducting the training lessons and by becoming aware of the determinative relations between the topics and the learning objectives. This associative duality requires relations of determination between the teaching and research components of the professional activity in universities. In order to stimulate the participative motivation of the subjects in doing the research we distributed, during the teaching activity, to each research subject a file in whose content we included the following, the football game structure, the standardized models of the training lessons, the content of the mixed circuit. The results recorded and the conclusions formulated based on their interpretation render objective the fulfillment of the purpose and the validation of the research hypotheses.

Keywords: force, football, students.

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1. Introduction

The individual professional activity, regardless of the teaching discipline in whose specific framework it is carried out in universities, associates two components which are interdependent and complementary:

- A teaching component whose dominant content is to design, to organize and to assess the teaching and learning of the students during classes held throughout the 1st year, of each faculty in the structure of each university;
- A scientific component in whose content there are associated a mandatory side

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and another necessary one whose completion contributes both to higher professional and individual training and to rendering objective and assessing the increase in efficiency achieved in the implementation of the teaching and learning.

This associative duality requires relations of determination between the teaching and research components of the professional activity in universities.

2. Work Hypotheses

Consequently we designed and conducted a scientific research whose theme:

- aimed to make a contribution to rendering objective and assessing the strength development during the training lessons;
- in the course of the motor activity which is mandatory from the teaching viewpoint;
- in accordance with the vocational selection of the sports branch chosen, namely football;
- And the work hypotheses established were the following:
 - if we elaborate it and this becomes common to each student, a file containing the components of the game structure, the content of the training lessons and trials to verify and evaluate the results obtained while doing the activity, then these results will render objective and will allow the assessment of the quantitative and qualitative effects due to the methodology used in the teaching and in becoming aware of the participative motivation of the research subjects in the learning process;
 - if we use a mixed circuit with a standardized structure with intensive execution and recording of the execution time for each training lesson
 - then we can consider that the value of the results to be recorded at the end of the research will represent the effect of the methodology used in the organization and carrying out of the training lessons performed.

3. Material and Method

In order to stimulate the participative motivation of the subjects in doing the research we distributed, during the teaching activity, to each research subject a file in whose content we included the following:

- the football game structure;
- the standardized models of the training lessons presented in annex no 1;
- the content of the mixed circuit with 10 exercises carried out in the intensive execution variation as a relation between the constancy of the required executions and the variation of the execution time recorded during each training lesson presented in annex no. 2;
- the verification system for the strength level presented in annex no. 3. in the 16 training lessons, of 120 minutes each, in the 1st semester, which took place on synthetic ground; with subjects distributed in four groups, each with the same 5 components in its structure.



4. Results and Their Interpretation

In annex no. 4 we presented the results recorded on the initial and final verifications, whose assessment was made by calculating the following:

- the average of the results recorded on each trial;
- the numerical difference between the average of the initial and final results;
- the percentage difference calculated by comparing the numerical difference with the average value of the initial results recorded on each trial.

The comparative analysis of the recorded results highlights as relevant the following findings and interpretations associated to them:

- the strength manifested sequentially for each leg shows significant differences from the performance viewpoint for the manifestation of the dominant laterality of the right leg;
- although the numerical differences between the initial and final results are equal between the two averages of the sequential performances, the percentual differences highlight a higher increase of the strength manifested in the left leg jumps;
- the manifestation of the strength in the alternate successive jumps, three with each leg, records the highest percentual increase which highlights the effect of the requirements which are equal as number of execution and successive in cyclic legwork.
- the force involved in the jumps made with both legs simultaneously records naturally a higher percentual increase than the one recorded in the execution of jumps with each leg individually;
- the association of the strength in the arms and feet on length jumps, achieved by shortening the dimensions of the extensor muscles in the legs and by lengthening the extensor muscles in the arms, records a higher percentual increase than that of the jumps executed on both legs simultaneously.

5. Research Conclusions

The synthesis for the assessment and the interpretation of the results recorded at the end of the research is highlighted by the following conclusive sentences:

- acquiring and applying the knowledge in the file distributed to the research subjects contributed significantly to the following:
- on one hand to the increase of the efficiency in organizing and conducting the training lessons and on the other hand to becoming aware of the determinative relations between the topics and the objectives of learning the executions and the individual and collective performances recorded;
- the complexity and the intensity of the work performed included in the structure of the mixed circuit and used to increase the manifestation of the components in the motor and technical capacity, contributed significantly to increasing the strength of the legs musculature involved in the execution of the technical procedures with and without the ball possession used in the



- football game;
- the structural and functional diversity of the execution of some rationalized exercises for different topics and objectives of the components in the motor and technical capacity, contribute both to fulfilling the objectives specific to each component of the training and to improving the content applied and the efficiency achieved, as an effect of the methodology used;
 - the results recorded and the conclusions formulated based on their interpretation render objective the fulfillment of the purpose and the validation of the research hypotheses.

Standardized training lessons

Annex 1

Content	1	2	3	4	5
1. Heating	15	15	15	15	15
2. Driving Qualities	30	30	30	30	30
3. Individual tactical actions of attack defense	30	25	20	15	10
4. Collective actions tactical attack - defense	10	15	20	25	30
5. School play	30	30	30	30	30
Total	120	120	120	120	120

Annex 2

Content year	The number of repetitions
1. The standing jump vertical landing squat palms on the ground, carrying back legs lying face 5 bending and stretching his arms comeback in squatting, jumping vertically, horizontally 5 with lifting knees	5 reps
2. Shootouts with moose	5 with right foot, left foot 5
3. Successive length Jumping on the same leg	5 series
4. Squat, vertical jump followed by lifting knees	5 repetitions
5. In the group of five, assists, collection, and travel passes	10 repetitions with each leg
6. Five jumping vertically with horizontal knee	10 repetitions
7. Jumping by step leaped on each leg on the distance of 20m	10 series
8. Jumping through step jumped on the distance of 20m	10 series
9. Leadership of the ball through milestones and completion	10 repetitions with each leg
10. Jumping on the spot with horizontal knee	5 repetitions



The structure of the control samples of the verification system

- Six long jump with right foot
- Six jumps in with his left foot length
- Six alternative jumping in length, three with his left foot right foot three
- Six successive jumps in length, on both legs
- Six long jump, the squat

The results of the control samples recorded initial verification and final in the research

Verification		1	2	3	4	5
Initial	Mediate	8,76	8,34	9,72	10,33	11,16
Final	Mediate	9,65	9,23	11,14	11,71	12,69
	Dc	0,89	0,89	1,42	1,38	1,53
	Dp	10,15	10,67	14,60	13,35	13,70

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