IMPROVE SPECIFIC EFFORT AMONG YOUNG HANDBALL PLAYERS - JUNIOR III

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Abstract

Purpose: This paper tries to make a material contribution to the enrichment method that we have available to those who have chosen the beautiful mission to initiate in the mysteries of handball, youth school - junior level III (12-14 years), the learn the specific movements of the game as close to game conditions and the burden to the specific requirements of the game of handball. The main purpose of the paper is to demonstrate the usefulness of a model of physical training in the training specific to the junior echelon III mass base handball performance.

Methods: We will submit to the research hypothesis by experiment to achieve superior results, so an effective preparation using drive systems. The idea behind the model to find the right way claiming the smallest amount of time, energy and investment, but also have the highest efficiency. Calibration of the inventory of assets and proceeds from their ranking according to the result of co-participation sport.

Results: Correct interpretation of the results of screened subjects is the most important step in assessing efficiency, learning efficiency in the 2 groups. We used data obtained Statistical-mathematical calculating statistical indicators. I mention that the material presented, representing performance figures were determined by the particular nature of the club and the specific groups that the experiment was conducted. Social environment, the physical and situation may affect the value of performance achieved during the experiment.

Conclusions: Easy to get, flexibility, coordination and relaxation of movement, will introduce specific exercises to develop skill in terms of physical demands and mental strain. Choosing and using largely exercises are recommended for general physical training and exercises some cyclical high demand, raising the potential for functional (respiratory and cardiovascular) of players.

Keywords: capacity for effort, improvement, young handball players

Introduction

We chose this subject because the value of a player for handball sport lies largely, of the qualities that you instruct it being included in their scope and potential of the Junior Driving on the basis of which the shape and refine the principles and skills required content development and technical-tactical, team-specific position [T. Bompa, 2001].

Without diminishing the importance of technical and tactical training in handball required noted that what determines the level at which the processes and actions are executed by players is the composition of specific physical.

Research objective

We will submit to the research hypothesis by experiment to achieve superior results, so an effective preparation using drive systems. The idea behind the model to find the right way claiming the smallest amount of time, energy and investment, but also have the highest efficiency. Calibration is based on the inventory of assets (exercises) and their ranking according to the result of co-participation sport.

The main purpose of the paper is to demonstrate the usefulness of a model of physical training in the training specific to the junior echelon III mass base handball performance.

From the beginning it is stressed that this is just a guide as specific local conditions, the level of training and development of children requires a different orientation from one team to another.

A model of physical training specific aims complex recovery system operated by strengthening institutions and systems, increasing their functional possibilities, motor skill development in relation to requirements at the junior handball practice level III.

The quality of suites of models is reflected in each coach, and continuous records underlying substantiation of methodical indications for specific physical training development process.

The specific aims of physical training and streamlining content optimization methods.

Research methods and procedures

Establishing subjects and content of work

In this work effort was dealt with effectively during the hours of training for handball players at junior level III of the CSS Medgidia and media influence specific physical training to increase efficiency during matches.

Experimental subjects.

- the experimental group - (10 athletes) on the dependent variable occurring;
- the control group - (10 sports) the independent variable is zero.

Athletes have been aware of the importance of specific physical preparation and training periods have worked seriously and in games and formal verification have failed to have an important contribution to achieving performance.
Particularities of the studied group

By consulting the medical records of athletes have found that not disturbing the status health. From terms of physical development, performing anthropometric measurements in terms of height, weight, open palm, scale, and biocromial diameter bitrahanterian, we found that athletes subject experiment falls within their optimum.

The analysis of specific physical preparation emerged following, based on results from initial testing:

- speed and responsiveness is generally good, with opportunities for improvement;
- skill level is quite good in all subjects at their level of training;
- detention have improved opportunities to all players;
- in terms of execution speed and better coordination during completion, must show a concern of coach for this;
- determine consistency specific resistance at high resolution specific job tasks;
- in terms of speed of decision will be considered that during matches or official verification that both combinations or on their honor to complete the courage and will.

Physical training model tested by us

Specific driving skills and tactical and technical content requirements of handball and effort as falling within the scope of influence of specific physical preparation, in order of importance and their contribution are:

- speed, response, repetition, completion;
- specific skills;
- detention muscle;
- specific force
- specific resistivity.

Analytical and coordination exercises with emphasis on speed:

- the counter running and catching the ball near the gate effects
- multi dribbling at high speed, range of 15-25 m
- running full speed along the ground by catching and passing the ball with players placed near the side lines.

In carrying out the technical elements (trapping, bird, throwing the gate, dribbling, dodge) present their forms of speed. But speed is evident especially in the processes of motion in specific field handball game. In the training aims to educate:

- speed home (response);
- speed travel
- speed execution
- repetition rate and related to these rule, ball handling and disposal. [V. Tudor, 1999].

Speed - is mainly done by using the means of athletics, from running the school for learning the art of running, and for increasing running speed. Thus, can be used effectively, Running exercise as a
School ball includes all means used for training skills and mastery of ball handling. In it we have more games and relay:
-relay with multiple dribbling
-dribbling with awkwardly arm among landmarks

Skill in the regime of force. The force of throwing (arm whippings and imprisonment for beating leg) and executed with skill necessary strength of the movement of attack and defense are about skill. Skill, speed regime - is manifested by moving the ground and use timely and rapid technical and tactical procedures of the game throwing passes in 2 and the gate arm awkwardly jump shot or throwing the leg opposite the throwing arm.

Resistance skill system. Typically skills are measured under aerobic conditions and with increasing skill, this capacity requires repetition in terms of complexity of exercises.

c. Alternate muscle - is practically custom actions of the legs to body movement made by pulse located in the lower limb muscles. It can develop by using the following means: jumping on the crate on the floor, jumping height, length, tripletsalt games, basketball, volleyball, shooting bears from jumping over obstacles [D. Colibaba-Evulet, 2007]. For detention under the strength we have skipped steps medicinal balls held under his arm, step one leg and throwing rejoiced at the gate.

d. Specific strength - is the quality motive implemented by:
-throw force (the force of arms and torso);
thrust (power leg) related to processes of passing balls and throwing the ball.

Force development are mainly used in gymnastic exercises:
-push ups in arms, genuflexion, abdominal exercises performed from a lying;
-tractor in arms at a fixed bar,
exercises with medicinal balls: - passing the ball with two hands, using procedures throwing the chest above the body, of a soldier, one foot over the head with the trunk extension;
-passing the ball with a spout hand launched and pushing;
-throw away from the place (10-15 m), movements in basic positions.

Exercises to develop muscular arms and shoulders:
-exercises extensorilor push for development;
-exercises using elastic bands for imitating the motion of throwing:

Exercises to develop muscular legs:
-genuflexion with and without weights;
-jumping exercises with weights.

1. As a first example of a circuit - a series of exercises to 6 devices - 3 athletes of 3 minutes per year:
-genuflexion with weightlifting
-abdomen exercises performed in a lying dorsal
-Jumping to the ball with knees to chest
-tractor in his arms wide flat
-passing the ball three drug
-push-ups in arms

During the whole circuit is approximately 20 minutes. Repeat this circuit 2 times.

2. A second example of circuit techniques: high-passing between I-E-P - 20 passing each
-dribbling between milestones (distance between landmarks 2 m) - in groups of 3 players - performed by 3 times.

Three-spool the land width. In the middle distance, a beacon, leaving the ball, grip, dodge the pole, penetration in dribbling, pass and move forward - running times each.
-dribbling with changes in direction - run 10 times each,
-spool in three steps from the jump.

e. resistivity-is quality consistency motive may lead to a high level, compliance with specific job tasks are determined by experience engine of the athletes. While the game is running distances of 30 to 0 m or driving action is executed in 3-6 seconds. The proportion of effort in game is considered to be the maximum ~ 34% (16% with intensity 1 / 1 and 18% in tempo 9 / 10, the submaximale of ~ 28%, large ~ 28%, moderate ~ 15%) [L. Boroga, 1983].

Participating players in phases of attack and defense during a match is ~ 40 → 70 running distances ranging from 3500 to 4500 m.[D. Colibaba-Evulet, I. Bota, 1998].

Exercises for improving the technical elements of resistance under:
-supported counter completed the gate throwing 2-3x10 break
-dribbling at speed, 20-25 m, with throwing the gate - 2 minutes between sets - 6.8 - length x 2 'rest
-passing the length of the land passed to put the touches land
-dribbling the bottom line to the center line and ground, launching the ball on the ground, running back to the starting line, stop, sprint power, lifting the ball, dribbling to the semicircle opposite, throwing the gate, gathering ball and move the sprint to the place of departure - 3 repetitions / pause return until it is among.
-passing the position further from 3 players to change seats and throwing, then replierea the semicircle Resistivity can be educated and uniform running 1 / 4, 2 / 4 and 3 / 4 for distances up to 300 m, 100 m for each iteration distance of 20-0 m due to variable effort provided in the game.

The cycles of training with every element of progression can be - number of rounds or number of repetitions in a round or altering simultaneously the number of rounds and number of repetitions in a round [A.Dragnea, S.Mate-Teodorescu, 2002].
In achieving its goals in the paper, the experimental group training program we introduced several additional drive systems.

1. Exercises for developing explosive muscle strength
   train lower (L, 1-5)
   S1 - jumping knee to chest
   3 x 10-15, 30 break "between series
   S2 - jumping on a bench fixed (h = 50 cm)
   3 x 10-15, 1 ' break between series
   S3 - jumping in depth on the bench on the ground
   3 x 10-15, 1 ' break between series

2. Exercises to develop general and specific resistance
   (R,1-2)
   R1 - running in the rate varied: 100 m - tempou 2 / 4
   100 m - tempou 3 / 4
   2 x 400 m - 1 ' break between series
   R2 - marathons - Running between the various lines of
   land (criss - cross-links)
   S4 - successive jumps of gymnastics boxes at the
   different heights (1,2,3), followed by 3 jumps in depth
   in descending order
   5.7 series, break 1 '
   S5 - successive jumps squat in squat
   5x10, pause 30 "between series

2. Exercises to improve change of direction (S1, 1-4)
   S1 - running speed on land length with changes in
   direction in different signals
   5-7 length, break 30 '
   S2 - running among the milestones for conducting the
   feint and change of direction -5-6 x 30m, break 30 '
   S3 - running on a route previously established that
   change in the steering-3-5 x 30m, break 30 '
   S4 - catching the ball, feint to pass the ball, dribbling,
   change of direction and shooting bears in the form of
   double spool, after that pulled back 3 x 14, break 1 '

4. Exercises to improve movement and speed of
   execution (VDE, 1-4)
   Vde1 - passing in three foot on land with complete
   foot length. Players run in the same plane-3 x 10,
   Vde2 - passing the three foot, the length of the land,
   with completion of the jump. Players run in scale with
   from man to man, obliquely forward and
   obliquely back: 3 x 10, rest 1 '
   Vde3 -passing the three foot, the length of the land,
   throw the gate in addition to hip. Players run in a
   "crane" more advanced than those middle-3 x 10,
   Vde4 - passing in three. The middle player is
   withdrawn, while those in more advanced side.

5. Exercises for developing detente arm throw
   Db1 - imitation throw the gate of the place of
   opposition resistance by an elastic band
   3-5 - x 10-15, 1 minutes break between repetitions
   Db2 - 10 throws the ball away with handball and then
   10 throws with tennis ball
   3-5 - series with 1 minutes rest between sets
   Db3 - push-ups with palms detachment of soil (usually
   5 - 3 to beat, break 30 "between the series 3-5 - x 5)

Db4 - 10 passes in two drug Ball 1 kg, followed by 10
passes in two handball ball (different methods) -3-5 x
with 1 minutes rest between sets
Db5 - 5 throws to bear on medicine ball instead of 1
kg, followed by 5 throws the ball handball-3-5 - x with
1 minutes rest between sets.

Organization of experiment

To observe and analyze the results we have
established a series of driving tests and functional with
performances at games gave us a mirror of the
evolution of subjects during the experiment.

Determinations were made driving in two steps:
a. the early preparatory period II;
b. at the end of the preparatory period III;

Physiological data were collected and processed
in 2 stages:
a. the early preparatory period II;
b. at the end of the preparatory period III

From the physiological truth that a good
physiological potential is generated by a full line
between somatic balance, ie in terms of harmonious
development and morphological characters
morphofunctionale is necessary collection of
anthropometric data and physiological functional
capacity related to cardiovascular and respiratory.
These data were recorded to see how much system
resources used affect the ability.

Physiological samples used in research
The interpretation of physiologic data we used the
following indicators:
1. The index of vital capacity (VC), determined
   by spirometry, used for qualitative and quantitative
   assessment of respiratory function and to detect any
   deficiencies of the respiratory system.
We appreciated the good and very good values of vital
capacity as:
-very good, over 3,500 ml
-good, between 3000 to 3500 ml
-poor, under 3000 ml

Qualitative assessment is made by repeating the test 3-
4 times consecutively.

If after the first test, functional capacity
decreases, it means that your breathing muscles have a
subnormal functioning capacity, and central nervous
system have a low resistance to the accumulation of
CO2, which increases the effort breath.

2. Lorentz index is equal to b. ratio of vital
   capacity and height. We provide data on the
   adaptability of the body on respiration during
   maximum efforts and submaximale.
   We considered the following values:
   -very good, over 20
   -good, from 17 to 20
   -poor under 17

3. Demeny respiratory index - is the coefficient
   index, lung or resistance training and body.
   Is defined by the ratio of vital capacity, measured in cc
   and body weight measured in kilograms. This
   parameter indicates lung is essential in establishing a
general biological potential. We gave an interpretation of the results as follows:

- very good – 75
- good - 60-75
- low - below 60

4. Ruffier resistance index is itself a test on which this index is calculated using the formula:

\[(P_1 + P_2 + P_3) - 200 \times \frac{10}{10}\]

The test consists of 30 genuflexion execution time of 45' and follow the curve of resistance and heart rate recovery during the total duration of 1 minutes. Measure the pulse at rest (supine) - P1. Perform genuflexion in 45 "in the next 15” is measured again heart - P2, and in the last 15 'minutes of recovery - P3.

Interpretation of data obtained was as follows:

- very good, less than 1
- good, between 1.1 to 5
- mediocre, between 5,1-10

This test also provides an objective criterion on the effectiveness of means used in preparation.

Driving samples used in research in addition to physiological evidence used as the theme of our work concerns the effectiveness of a specific model of physical training handball battery of tests we used specific driving handball undergoing review of their effectiveness:

- 5x30 m race with a break between repetitions 30.

Running is the average of 5;

-specific evidence is through the hall as described and attached sketch:

a. Travel in triangle (1) with output peak (2), with oblique lateral movement - back (3), high output (2), oblique lateral back (4), lateral (1). Repeat 2 times.

b. Running speed to the center of circumventing the benchmark:

1.5 running
5.2 running back

c. It collects the ball at its 1 side of 1 m section 2 and 6 go on dribbling stakes placed among the first milestone on the center of the field at 5 m from the triangle's peak and the other 5 at 3 m distance from each other.

d. After overcoming the last milestone to throw at the gate trying to achieve one of the 2 balls hung at the gate in top corners.

After throwing the ball (1) is running at speed towards the middle obliquely passed the finish line. For each ball touched the ball 1-2-3-4 - are granted a bonus of 5 points.

- 3x200 m - advocated in the room (5x40 m) with the break between repetitions of 1 'and will be the average of 3 running;
- shuttle;
- long jump in place;
- pentasalt;
- ball throwing distance - with the impetus of 3 steps;
- skill specific test.

x starts the running of pulled back (sprint) of paragraph 1 of the line center to center, the moving side 6 m to pass through points ABC, running before the AC and AB then moving back in before the BE and back through it, running side by 3 m AB, collecting the ball from point A and passes with no partner. 1, still running in a straight line and passes the ball back with no partner. 2, continue running in a straight line and the ball back, still dribbling with changing distance movement, including 4 stakes placed from 2 to 2 feet, throw the gate of running or jumping from the semicircle of 6 m.

The experiment took place from 15 October 2008 to 15 May 2009.

In this period, athletes were initially tested, then the applied model of training and then the final test. At the start of training athletes were informed about the scheduling control samples in accordance with the timetable established. Recording of the control samples both for initial verification and final verification was made under similar conditions, at the beginning and end of their training.

Results and discussions

Driving test: speed 5x30 m

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<tr>
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<td>4,4</td>
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<tr>
<td>DS</td>
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<tr>
<td>CV</td>
<td>4,23%</td>
<td>3,47%</td>
</tr>
<tr>
<td>t corel dep</td>
<td>7,54</td>
<td>3,57</td>
</tr>
<tr>
<td>P</td>
<td>&lt; 0,0005</td>
<td>&lt; 0,005</td>
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Arithmetic mean of the experimental group decreased after attending the preparatory period for the quality-speed driving, the average values from Tf is lower than values from Ti (Tf - the final test, Ti - initial testing). TF1 values in the experimental group are lower than the control group TF2, so in using specific means ss obtained a growth rate indicates the level of development in the experimental group compared to the control group. Derivation from baseline final standard is lower in both groups, so there is a better ownership of the tasks of training.
The coefficient of variability in \( T_f \) (\( = 3.47\% \)) has lower values than the \( T_i \) (\( T_{i1} = 4.25\% \), \( T_{i2} = 4.17\% \)).

In this sample group of athletes have a low scattering (between 0-15) and collectives are relatively homogeneous.

Comparing the average of the 2 groups in final testing of the experimental group \( T_{f1} = 4.4 \) is better than the average of the final testing of the control group \( T_f = 4.6 \).

The difference is significant static at \( p < 0.01 \), for the experimental group which means that program development rates of movement had the desired effect.

One can notice a significant increase in speed athletes from 30 m to the experimental group, the difference being significant static at \( p < 0.0005 \).

### Technique test

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<td>X</td>
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<td>DS</td>
<td>0.80</td>
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</tr>
<tr>
<td>CV</td>
<td>1.93%</td>
<td>2.45%</td>
</tr>
<tr>
<td>( t_{dep \ colab} )</td>
<td>7.51</td>
<td>2.91</td>
</tr>
<tr>
<td>( p )</td>
<td>&lt; 0.0005</td>
<td>&lt; 0.025</td>
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</table>

Arithmetic mean of the experimental group decreased after the training allocated to this evidence, the average values at the end \( T_{f1} \), being smaller than the values recorded in \( T_{i1} \).

Also media \( T_{f1} < T_{f2} \) which shows that the additional resources used in the experimental group had the desired effect.

\( T_{f1} \) final standard deviation = 0.98 is higher than the initial standard deviation in the experimental group \( T_{i1} = 0.80 \), while the control group standard deviation initial \( T_{i2} = 0.84 \) is higher than the final \( T_{f2} = 0.81 \).

Analyzing the results of the experimental group 2 and control for the final assessment we \( CV_{f1} = CV_{f2} = 2.45 \) and 1.94 we find great uniformity of objectives.

The explanation for this phenomenon is relatively simple because the performance of random, which were selected after some initial performance. Consider also a better homogeneity of the 2 groups on technical evidence to the running speed 5x30 m. Comparing the experimental group with the control group, we calculated the significance of the difference between final averages of the 2 groups by the test that has a value of 2.82, 40.37 average from the experimental group is better than the 41.7 average from the control group at final testing.

### Driving test: Endurance 3x200 m

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<tr>
<td>X</td>
<td>44.01</td>
<td>45.44</td>
</tr>
<tr>
<td>( t_{dep} )</td>
<td>2.86</td>
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<tr>
<td>( p )</td>
<td>&lt; 0.01</td>
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On this evidence it concerned checking the level of development of specific resistance handball - is below average. Final \( T_{f1} = 44.01 \) is less than the mean baseline \( T_{i1} = 45.34 \) to the experimental group and the control group is observed maintaining the same values an average 45.8 to 45.44 to \( T_{i2} \) and \( R_{f2} \). So, after browsing the preparations, the experimental group improved joint effort capacity (aerobic - anaerobic).

The calculation of dispersion is observed a decrease in the final assessment in both groups.

The results obtained by calculating the final standard deviation is close to both groups ranging between 0.91 and 1 in the experimental group.

The coefficient of variance in final testing \( CV_{f1} = CV_{f2} = 2.29 \) and 2.01 are lower than those found in the initial verification \( CV_{i1} = CV_{i2} = 2.48 \) and 2.44. In this trial, both groups have a small scattering so homogeneous groups.

Materiality of the experimental group was \( p < 0.0005 \) shows that the drive systems used further in this group were more effective than those used by traditional program.

The difference between the average final test at the 2 groups is statistically significant at \( p < 0.01 \).
Throwing the handball ball away

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<tr>
<td>DS</td>
<td>0.8</td>
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<tr>
<td>CV</td>
<td>2.44%</td>
<td>1.82%</td>
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<tr>
<td>t dep colab</td>
<td>-8.41</td>
<td>4.93</td>
</tr>
<tr>
<td>P</td>
<td>&lt; 0.0005</td>
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Arithmetic mean to throw the ball away from handball experimental group created by extending the cycle of training for developing detente throwing arm registering values of 34.78 to 32.87 initial verification. Comparing the 2 groups is observed that the arithmetic mean of the experimental group is much higher than the control group at final assessment with a value of 32.21.

Standard deviation decreased to final verification in both groups, but has higher values in the experimental group (0.63) compared to the control group (0.03).

The coefficient of variability final CVf1 = 1.82 is lower than the initial verification CVi1 = 2.44, so the experimental group presented a scattering medium, so a relatively homogeneous group.

As a specific test handball, is observed in both groups significantly increased indices aimed at developing detente throwing arm.

A test value being 11.01 m shows that the difference between final averages of the 2 groups is statistically significant at 0.0005.

Long jump

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<tr>
<td>X</td>
<td>34.78</td>
<td>32.21</td>
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<td>P</td>
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This evidence has been obtained higher averages, final verification in both groups compared to the initial verification (TF1 and TF2 = 2.20 = 1.93) but significantly higher in the experimental group, which demonstrates that specific exercises used for development of quality drivers, force speed under muscle legs were much better. Standard deviation decreased in the experimental group at the final assessment value reached 0.09 while the control group increased from baseline, reaching a value of 0.21.

The coefficient of variability CVf1 = 4.22 is lower than the value obtained from initial verification CV11 = 6.43 in the experimental group while the control group at final assessment CVf2 CV = 11.01 increase from the initial verification CVi2 = 5, 05.

In this trial the experimental group has a small scattering, which shows a greater homogeneity and control group presented a moderate scattering, so we are dealing with a homogeneous control group.

There is a statistically significant difference at p <0.005 between groups, final testing environments, which leads us to conclude that specific physical training program implemented and has achieved favorable to the experimental group.

Pentasalt: Détente

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<td>10.57</td>
<td>11.01</td>
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<tr>
<td>DS</td>
<td>0.25</td>
<td>0.18</td>
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<td>2.41%</td>
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<td>t dep colab</td>
<td>13,31</td>
<td>4.08</td>
</tr>
<tr>
<td>P</td>
<td>&lt; 0.0005</td>
<td>0.005</td>
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</table>
Arithmetic mean in the final assessment has increased in both groups recorded the values of TF1 and TF2 = 11.01 = 10.56. It also noted a much greater increase in the experimental group compared to the control group TF1> TF2.

Standard deviation decreased in both groups at final assessment compared to initial verification, but the coefficient of variability in the experimental group is lower than the control group, DSf1 <DSf2. The coefficient of variability final CVf1 = 1.66 and coefficient of variability final CVf2 = 2.28 are lower than values recorded in the initial checks (CVi1 = 2.41, CVi2 = 3.33).

On this evidence both collective presents a small scattering, so a good homogeneity, so it is noted that the threshold of significance is good in both groups, the difference between the average final tests are statically significant at p <0.005.

Greater variability in sample long jump from place to sample pentasalt shows an inconsistent performance following the teacher to make a proper stabilization through the use of additional exercises.

### Specific skill test

<table>
<thead>
<tr>
<th>GRUPE</th>
<th>EXPERIMENT</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEST</td>
<td>IT FT</td>
<td>IT FT</td>
</tr>
<tr>
<td>X</td>
<td>23 22,13</td>
<td>23,49 23</td>
</tr>
<tr>
<td>DS</td>
<td>0,45 0,53</td>
<td>0,50 0,44</td>
</tr>
<tr>
<td>CV</td>
<td>1,98% 2,42%</td>
<td>2,14% 1,95%</td>
</tr>
<tr>
<td>(t_{dep colab})</td>
<td>11,09 3,8</td>
<td>&lt; 0.0005  &lt; 0.005</td>
</tr>
<tr>
<td>P</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This test of skill required and a high speed contribute to the development of combined driving qualities: skill, speed regime. There is a decrease in the average final verification in both groups TF1 and TF2 = 22.13 = 23 to the initial verification TF1 = Ti2 = 23 and 23.49.

Training program has come from the experimental group by using the additional drive systems has increased the difference between the 2 groups in terms of quality motive, skill, speed regime from the initial 0.49 to 0.87 in the final.

Standard deviation in the final assessment in the experimental group increased from the control group, which highlights the fact that athletes going through the same training program as different evolved motive quality skill system is a quality native speed.

In the control group standard deviation at the final assessment is lower DSf2 = 0.44 compared to initial verification DSi2 = 0.5.

The coefficient of variability in the final assessment in the experimental group (CVf1 = 2.42%) is higher than that recorded in the initial verification (CVi1 = 1.98%) while the control group, the coefficient of variability in the final assessment (CVf2 = 1.95%) decreased from the initial verification (CVi1 = 2.41%).

However both are homogeneous collective with a small scattering.

By comparison between the 2 groups by calculating the difference between average final test p <0.005 is noted that there is a statistically significant difference between the 2 groups, program development speed increase skill level index had the desired effect.

### Conclusions

Conclusions that we learned from the experiment, in terms of driving skill specific and covered the ability to influence specific effort are:

- to improve the driving qualities specific qualitative indices (in particular speed and force) will alternate the exercises designed to set the correct implementation details are to develop some quality drivers; will choose the rational exercise of force development indices that can be enter into the structure of the driving skills of the game;
- November to training habits will make various technical, specific action, full speed or in terms of fatigue and emotional tension;
- to develop qualities and strength + speed driving force will be used isotonic and isometric exercises, especially those that include type movements overcome failure, ensuring an active system apparatus working muscle - easy to get, flexibility, coordination and relaxation of movement, will introduce specific exercises to develop skill in terms of physical demands and mental strain;
- choosing and using largely exercises are recommended for general physical training and exercises some cyclical high demand, raising the potential for functional (respiratory and cardiovascular) of players.

### Proposals

Quality training is reflected in drawings of models of each coach, and continuous records underlying substantiation of new indications, preparation methods for the development process.

This model requires specific physical training in practical application exercises, which shapes both the content and nature of the game demands mentioned earlier.

I think it is very important as physical education teacher, that coach should strive to find a number of ways as streamlined to accelerate endowment swift
handball with driving qualities thus providing the foundation to strengthen the specific technical processes -tactical game, shorten the time for obtaining performance by optimizing the preparation and operation means more choice for their efficiency.

The fact that the baggage driving qualities of athletes are or are not well represented in the game of handball and that they are frequently requested explain why these qualities must be developed.

Specific motor skill development is provided properties conscious, and active sound tactical and technical processes but also a consequence of sports performance effectiveness.

References


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