

PERSONAL CONTRIBUTION TO IMPROVING MARINE STUDENTS PERFORMANCE ABILITY IN THE OBSTACLE COURSE TESTS

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Abstract: *The main task of physical training is to enlarge the sportsmen effort capacity, the skill's and psychologic effectiveness in order to improve the performances in the main competitions. In order to conduct efficiently the training schedule, the energetic energetic systems have to be well understood, as much as every step of the system, the necessary time for the sportsmen to restore their energetic reserves spent during the training sessions and the competitions.*

Key words: *training; obstacle; methods; military pentathlon.*

PAPERWORK'S PURPOSE

- Performing behavior within the military pentathlon, pursuant to NATO structures.
- Optimizing training strategy, in view of performance improvement of the *THE 'MIRCEA CEL BATRAN' NAVAL ACADEMY* Military-marine students.

GOALS:

1. Theoretical and methodological substantiation of the paperwork.
2. Establishing instruments and tests in order to measure the performance capacity in the military pentathlon(obstacle course);
3. Elaboration of an obstacle course test model, whereby the structural actuation and the effort characteristics, are building up the dimensional referral for the training process.
4. Preliminary study regarding students performing behaviour in the obstacle course test.
5. Establishing the instructional objectives, the annual and operational training projects
6. Experimenting elaborate training programs.
7. Obtained results statistical interpretation.
8. Finishing the eperimented training programs
9. Editing the paperwork and sustaining it.
10. Elaborating the publical sustain of three scientific communications.

PAPERWORK HYPOTHESIS

The preparation for the obstacle course must be streamlined and rationalized since it plays a distinguished importance in training military students for battles.

Upon this point of view the next speculations are emitted:

- If we analytically work for improving the technique of passing every obstacle and then bonding more obstacles until the correct pass of all the obstacles is complete, then the results of all the military-marine students will be more improved;
- the military demonstration performances will increase if we configurate the practicing conditions and every obstacle specific solicitations.

If we will improve the actuating and functional capacity of the military-marine students with the help of athletic sports specific training strategies, then the performance behaviour for the obstacle course test will be improved.

RESEARCH METHODS AND TECHNIQUES

In the experimental research we used the next methods:

- Special literature analysis;
- Pedagogical observation;
- Measuring methods;
 - test for checking the morphological development;
 - test for checking the functional capacity;
 - test for checking the general physical training;

- test for checking the specific physical training.
 - Pedagogical experiment;
 - Comparative method;
 - Mathematical Methods of Statistics for processing and executing assignments;
 - Graphical representation method.

PRELIMINARY STUDY UNFOLDING CONDITIONS

The experimental researching followed a way in which the structure rationalization and training content contributes to a new orientation achievement of the military pentathlon special training methodology. This experiment took place at THE 'MIRCEA CEL BATRAN' NAVAL ACADEMY sporting base and included the two groups: experiment and witness based on military-marine students (navigation and *Naval Electromechanics*).

Sports training components, structure and training lessons content were tackled on the period of 5 mesocycles macrocycle experimental research along the next stages:

- ❖ *First stage included the special literature study. By the existing literature the researching program was checked and composed.*
 - *The pedagogical observation permanently followed the research along the experimental study and along military-marine students achievements permanent pursuance.*

❖ Second stage consists in organising the eperimental stage, at THE 'MIRCEA CEL BATRAN' NAVAL ACADEMY, Constanta, where the training for the obstacle course took place.

Both experimental pattern and witness were done of 45 military sportives each.

- Inside the experiment 3 tests were accomplished: initial, mediate and final.

The experimental first stage registered results encompassed the reference data respectively the mediate testing database whereby we continued the research.

■ The final testing was established at the end of the macrocycle with a continuance of eight months, respectively 5 mesocycles. Thus the elaborate researching program, foreseen with a different training system as structure and content, for a macrocycle period was deployed in the experiment group training program.

Third stage consists in finishing our researching. The gathered data were scientifically interpreted.

The statistic processing was deployed in two sequences:

- for each sample grouped by tests: momorphological, functional; general and specific actuations of the military pentathlon(for each separated group);
- comparing the two groups (experiment and witness)

For elaborating a judgematical planning there was made an allowance for the judicial analysis of the training process quantity and quality level that was developed last year.

The elaboration was made in last year's transition period, because the sportsmen perspective and

ability can only be judicially analyzed in the contest time ending, you can fix the goals and tasks for the next period of time from negative and positive aspects.

This graphical way of presenting the annual planning in training the military-marine students in the obstacle course test, has the advantage that is clear and explicit.

You can watch when and how the training is taking place (training time for the obstacle course – with each preparatory, competitive and transitional afferent sub-period), the follows to train along the whole year of practice (based on a technique and fitness training), when the control norms and tests will take place, all of these based on the main contests that will take place.

In view of respecting the training planification was made an allowance on respecting the next requirements:

- training goals achievement solid control, included in the training plans, of more of the sportsmen;
- once with the announcement of the competition calendar no modification of the competitions deployments data should occur, because this would have a negative influence on the training.
- avoiding to participate at contests in the exam session;
- in the contests establishment the traditional contests must be considered.

EXPERIMENT CONCLUSIONS

The hypothesis in which the manipulated arguments led to the experimental group is confirmed with the help of the next results:

- military students functional capacity grows, obtaining a growth of:
 - **vital capacity** from **4675,5(I.T.)** to **5395,5 (F.T.)** with over **620** units and in the same time they situate over the witness group with **380** units;

CONCLUSIONS

Both witness and experiment groups effected study, had the purpose on a way of verifying the training methods applied on the two groups and on the other way verifying actuating and functional components role in developing military obstacle course necessary abilities process, which plays an important role in training the military students for fighting.

Owing to the obtained results based on the statistical arrangements that are applied on the actuating and physiological characteristics adequate data, we can affirm:

1. The specific actuating and physiological characteristics of the two groups, witness and experiment, are significantly different from the initial testing to the final one, the training progress is having an ascending trend.
2. The applied training methods for the experimental group subjects led to obtaining better results, results that are confirmed by the statistics arrangements applied to the final tests measured characteristics data. „The long jump” without spring and „heart frequency” tests are making an exception from this statement where the obtained results of the subjects of the two groups at finish are significantly alike in the statistics point of view.
3. Both groups subjects obtained results have an ascending trend, ascertaining a performance improvement from one testing to another.
4. Better results obtained from the experiment group at the obstacle course test are in this phase due to the training technique, which key factor progress (when all the military-marine students are having the best training fitness, realised by Fitness classes, military training and refreshment and also the sporting training).
5. Planning a one year training with clear training stages, realising some training programs according to domain's novelty emphasized on this first year's training on the correct technique attribute of passing the obstacle in different condition, until the ones in the competition (only having the best fitness training), led to results improving and to tend international level results.
6. Ph-functional characteristic value growth, passing the obstacles continuously perfecting, will make that the next period's training results (with the selected one's) will grow in value.

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- **heart frequency** from **78,11 (I.T)** to **72,48(F.T.)**, with over **5.53 heartbeats/min**, and in the same with **1.18 better** than the witness group;
- actuating capacity grows
 - **1000 m.** – from **3:12,97** to **3:01,57** with **11,40 sec**, and with over **13,68 seconds better** than the witness group;
 - **long jump** - from **248,7** to **261,3 cm**, with over **12,6 cm**, and with **0.90cm** over the witness group;
 - **floatings** – from **39,22** to **44,44 exec**, with **5,22 better**, and with **2,22 more** than the witness group.

The analytic work for improving passing each obstacle and bonding more obstacles technique, till the correct passing of each obstacles technique made the marines performances grow:

- ❖ **from 3:17,15** to **2:58,44** with **18,61 sec. from the initial testing to the final one**, and with **13,12 better** than the witness group of which result is **3:11,56 sec.**

Researching results are not getting influenced by the anthropometric data although even here you can notice a very little growth that does not influence the final result at any kind.

All these different characteristics growths measured in time of the experiment they finally led to the semnificative growth of the military-marine students results-experimental group- at the obstacle course test.

From the graphical representation you can actually see the fact that both groups (experiment and witness) are growing, but only growing the performance of the experimental group is significant and this performance medium value is with over 13 seconds better than the witness group.