



DEVELOPING THE ABDOMINAL ENDURANCE OF THE UPB STUDENTS BY USING MEANS SPECIFIC TO JUDO IN THE PHYSICAL EDUCATION LESSONS

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Abstract

Using the judo elements in the physical education lessons has experienced a spectacular growth in the recent years through the multiple valences they offer. The focus of this subject methodology is represented by studying the characteristics of the instructional -educational process, the elaboration of the didactics specific to the training process of the students and also the development directions at a high level of the motor qualities this situation led me to approach this topic with the conviction that the use of the judo specific means in the physical education lessons from the U.P.B. will significantly contribute to the motor qualities development. I intend to do a study on the abdominal endurance development U.P.B. of students through the use of the judo specific means in the physical education lessons. I truly hope that through this study I can open new directions for guiding the U.P.B. physical education lessons. The research methods that were the basis of this study are the following: the bibliographic study, the observation method, the experimental method, the statistical and mathematical method. The results obtained from the data analysis certify that use of the judo elements in the physical education lessons has a positive influence on the abdominal endurance development.

Keywords: *abdominal endurance, specific means, judo, physical education lesson*

JEL classification: *I12, I19, I20*

1. Introduction

This study aims to investigate the connection between the judo elements used in the physical education lessons and the motor qualities. In selecting the judo specific exercises and their use in the physical education lessons we will take into account the instructional - educational objectives pursued in the learning process in its various stages. Starting from this idea, the criteria according to which we select the judo specific exercises are the following:

The exercises selected should be effective and in this regard we must meet the following requirements: to respect the individual morphological, functional and psychological particularities of the students (Harre D., 1987). Only by knowing

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thoroughly the collective's physical and psychological peculiarities and the students' individual peculiarities we facilitate the use of the exercises structures designed to bring their contribution to the objectives pursued; the exercise selection should be made according to where the lessons take place; the selection of the exercises and of the exercises structures should match the objectives pursued. The exercises and the exercises structures are not a goal in itself; they are means for training and developing the skills and the abilities, the motor qualities and also for achieving higher indexes of the morphological and functional body development (Hantău I., 1996).

The use value of the exercises and exercise complexes selected should be as large as possible. In this respect we aim to form the following: a correct body attitude; to stimulate the tonicity and the troficity for the musculature of the upper and lower limbs, of the back and of the nape, etc. (Ardelean T. 1990); the posture reflex; to stimulate the respiratory and circulatory functions; to stimulate in the systematic practicing of the physical exercises, the motivation for doing judo; to contribute to forming the character traits required by sports practicing and by the exigencies our society imposes to students (Epuran M., Horghidan V., 1994). The execution of the judo specific exercises develops the students' courage, perseverance, self-control, growth and fairness, ensures a wide possibilities for manifesting the imagination, attention, memory, perspicacity, decisiveness regarding actions, the desire to win. By the way of organizing and conducting the judo exercises we educate the students' discipline, punctuality, sense of order (Dragnea T., 1990). We should include the possibility to control the influences of the judo exercises on increasing the efficiency of the physical education lesson (Chestionar, Germania, 2002) In conducting these experiments we started from the following considerations regarding the judo specific means: selective functionality so as to support the harmonious physical development and motor skills development; the possibility to organize the exercises so as to work as partners and in groups; the applicative character of the exercises (Hantău I., 2005).

2. The Purpose of the Paper

This paper tries to start new directions in guiding the physical education lessons in the UPB by employing the means specific to judo and also due to the interest that the students showed in practicing the contact sports.

3. Hypothesis

This study's starting point is the hypothesis stating that if the students manage to acquire the operational training structures specific to judo, the efficiency, when applying these in the physical education lessons, will increase and the students' abdominal endurance will also develop.



4. Research Methods

In order to conduct the study properly we used the following research methods: the bibliographic study method, the (direct) observation method, the experimental method and the statistical-mathematical method.

5. Experiment Content

We employed in our experiment independent variables, under experimental control. We introduced judo means in the training of the students from the experimental group in order to improve the abdominal endurance and we elaborated a program to develop it. We used training operational structures, such as:

- a. specific means for developing and training speed;
- b. specific means for developing power;
- c. specific means for developing resistance.

5.1 Place and Duration of the Research

The experimental research was conducted on a group of 20 students belonging to the Faculty of Transports from the UPB. The experimental research project was carried out over two semesters. The two tests were held in the U.P.B. physical education hall during first and second semester of 2013-2014 academic year and the two weeks were not included in the training program.

5.2 Subjects

In making up the experimental group participating in the research we opted for the random selection of 20 subjects who are students from the U.P.B.'s Faculty of Transports.

5.3 Research Design

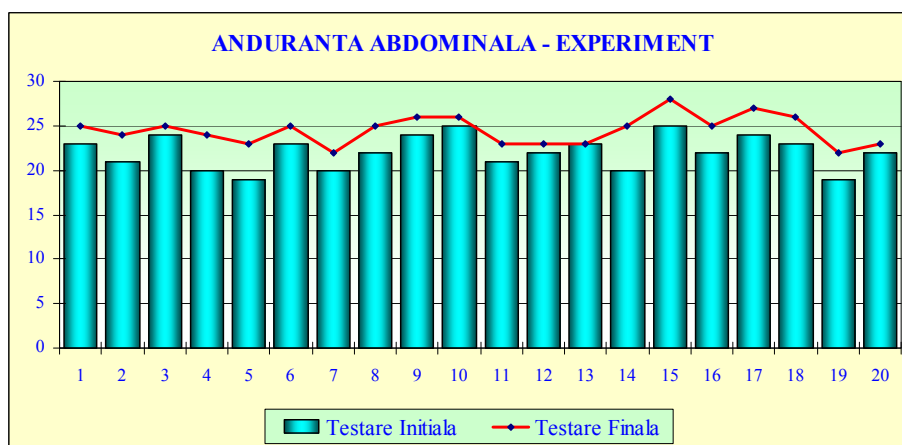
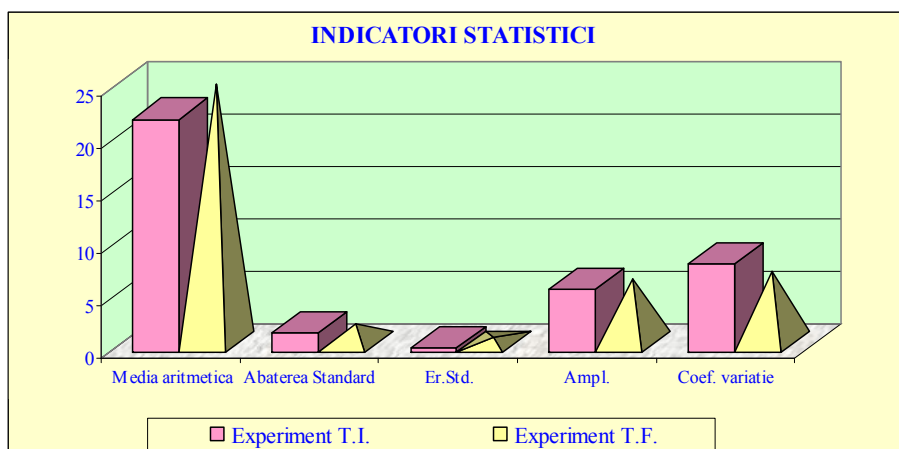
We applied on the subjects for the two semesters the independent variable; the testings were held during the physical education lessons in the university physical education hall. The subjects were tested at the beginning and at the end of the experimental presented time with a test for abdominal endurance, with a maximum number of repetitions at 30 seconds from lying down on the back on bended knees and the arms at the back of the neck.

6. Results

The testings' results are presented in what follows:



ABDOMINAL ENDURANCE									
EXPERIMENTAL GROUP									
TESTING	Arithmetic Mean	Median	Module	Standard Deviation	Medium Deviation	Std. Er.	Dispersion	Ampl.	Variation Coeff.
T.I. Experiment	22.10	22.00	23.00	1.86	1.51	0.42	3.46	6.00	8.42
T.F. Experiment	24.50	25.00	25.00	1.64	1.35	0.37	2.68	6.00	6.69
t-TEST									
The calculated value of the t		8.72							
Value of the critical t		2.09							





The arithmetic mean– increased from 22.10 repetitions at the initial testing to 24.50 at the final testing.

The median – has an increase of 3 repetitions at the last testing.

The module – increases from 23.00 at the initial testing to 25.00 repetitions at the final testing.

The standard deviation – decreases from 1.86 repetitions at the initial testing to 1.64 repetitions at the final testing.

The medium deviation –has a decrease of 1.51 repetitions at the initial testing to 1.35 repetitions at the final testing.

The standard error – decreases from 0.42 repetitions at the initial testing to 0.37 repetitions at the final testing.

The dispersion – decreases from 3.46 at the initial testing to 2.68 at the final testing.

The amplitude – had, between the two testings, the same value of de 6.00 repetitions.

The variation coefficient – at the initial testing is of 8.42 and at the final testing is of 6.69 –relatively homogenous sample.

By calculating the t –the bilateral test, to verify the null hypothesis, we find that its value is of 8.72. By comparing it with the value in the Fischer table, for a reliability threshold of $p < 0.05$, we observe that the calculated t has a higher value than the critical t value, which is of 2.09. The difference is significant; therefore the null hypothesis is rejected.

7. Conclusions

Following the results obtained by applying the judo means we definitely find improvements in the abdominal endurance among most students.

By systemizing the results recorded and their corresponding interpretations, we can say that doing combat sports in the physical education lessons represents moderating variables, meaning that they raise the interest and the frequency for practicing them.



The results we obtained confirm the hypothesis we set at the beginning. The results of the research led us to the conclusion that the means we employed were accepted by the students and ensured definite progress. These means we employed in the lessons have to be strictly quantified as number of repetitions and content when working to achieve better performance. The data analysis can extrapolate the future directions in guiding the lessons with the UPB students.

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