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INCREASING THE PHYSICAL TRAINING OF THE STUDENTS FROM THE UNIVERSITY OF BUCHAREST BY APPLYING PREPARATORY GAMES

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Abstract

This work gives the possibility of practical and methodical recommendations on preparation of representative teams by increasing exercise capacity by applying the preparatory games. Research results can be used successfully in basketball training specialist in university teams.

The novelty and originality of the research is that it aims to optimize the training of students, based on increasing their exercise capacity. It was developed and applied in the practice of rating games preparatory training and the methodology for selecting and implementing them in the sport of basketball training of representative team.

Keywords: training, students, physical training, technical training, preparatory game, basketball game.

Introduction

Preparatory games further applied in the teaching experiment showed a significant positive influence on all physical evidence tested. This conclusion is substantiated by significant differences in both arithmetic averages between tests and between groups at $p < 0.01$ and $p < 0.05$.

We conclude that specific content preparatory basketball games (Sakizlian R., 2011, p. 142) can be applied successfully in athletic training of representative teams.

Material and method

In teaching experiment we tested 6 number of general motility control samples, which are listed below: long jump from the place, vertical jump, running speed 30 m, raising the torso from a lying back in 30 sec., push-ups and resistance running 600 m.

Initial and final testing was performed in both groups to determine the effectiveness of the program on the method proposed by us. To assess the level reached by the two groups we matched the final investigation specialized model (Table 1).

Hypothesis

It was assumed that the use of preparatory games of basketball in the sports training students will contribute substantially to improve their sports training, which is expressed by:

► increase in physical training;

► improvement of technical training;

► increase the effort capacity.

Below we present the results of testing samples of general physical training.

Results

Table 1. General Dynamics motility indices

Probe de control	Subjects	Initial testing $\overline{X} \pm m$	Final testing $\overline{X} \pm m$	t	P
Long jump from the place, Cm	**E**	**181,92±3,79**	**192,5±2,31**	**3,89**	**<0,01**
	M	**179,6±3,5**	**185,1±2,67**	**2,20**	**<0,05**
t; P	**E-M**	**0,45; >0,05**	**2,09; <0,05**		
Vertical jump, Cm	**E**	39,82±1,2	**42,8±0,73**	**3,44**	**<0,01**
	M	37,83±1,6	**40,31±0,89**	**2,13**	**>0,05**
t; P	**E-M**	0,99; >0,05	**2,16; <0,05**		
Running speed 30 m, Sec	**E**	5,63±0,14	**5,31±0,08**	**3,11**	**<0,01**
	M	5,87±0,11	**5,66±0,14**	**2,10**	**>0,05**
t; P	**E-M**	1,35; >0,05	**2,18; <0,05**		
Abs in 30", nr.repetări	**E**	27,78±0,71	**29,5±0,54**	**3,38**	**<0,01**
	M	26,17±0,9	**27,6±0,69**	**2,22**	**<0,05**
t; P	**E-M**	1,4; >0,05	**2,17; <0,05**		
Push-ups, nr.max rep.	**E**	10,67±1,8	**14,88±0,97**	**3,19**	**<0,01**
	M	9,08±1,5	**11,51±1,23**	**2,24**	**<0,05**
t; P	**E-M**	0,68; >0,05	**2,15; <0,05**		
Resistance running 600m (B)-minute	**E**	3,97±0,11	**3,76±0,09**	**2,96**	**<0,05**
	M	3,76±0,09	**3,85±0,17**	**3,98**	**<0,01**
t; P	**E-M**	1,47; >0,05	**0,47; >0,05**		

Long jump from the place (cm) (Table 1, Fig. 1). In initial testing it was found that the experimental group arithmetic mean values are 181.92 cm with an average error of 3.79 cm, while the control group are 179.6 cm with an average error of 3.5 cm. The final test, arithmetic mean values of the experimental group reached 192.5 cm with a mean error of 2.31 cm, while the average values of the control group reached 185.1 cm with a mean error of 2.67 cm. It is noted that the experimental group was much closer to the model values from literature.

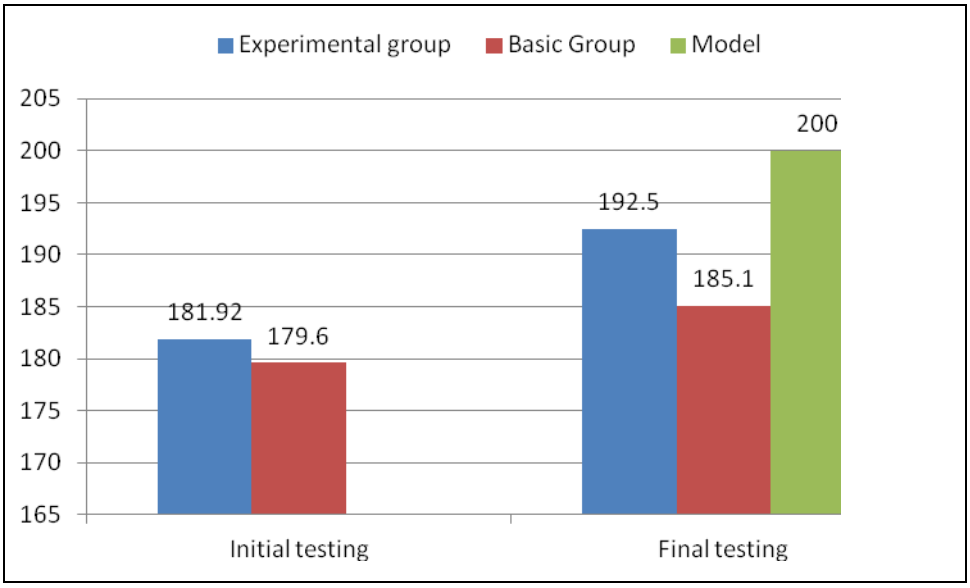

Fig. 1. Long jump from the place

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Differences between initial and final tests experimental group is highlighted that "t" calculated value 3.89 is greater than "t" spreadsheet (Fisher) at the threshold of significance 0.01, showing significant differences between tests. Regarding the control group the value of "t" is calculated as 2.20 higher than the "t" statistic, also resulting in significant differences between tests at p <0.05. Noting the differences between experimental groups and control environments in initial testing, it highlights that "t" calculated value 0.99 is less than "t" statistic at p> 0.05, insignificant and the test result is final "t" calculated 2.16 value is greater than "t" statistically significant result.

Vertical jump (cm) (Table 1, Fig. 2). In initial testing of the experimental group arithmetic mean values are 39.82 cm by 1.2 cm average error and the control group are 37.83 cm by 1.6 cm average error.

The final test, arithmetic mean values of the experimental group reached 42.8 cm with a mean error of 0.73 cm, while the average values of the control group reached 40.31 cm with a mean error of 0.89 cm. It is noted that the experimental group closer to the model values from literature.

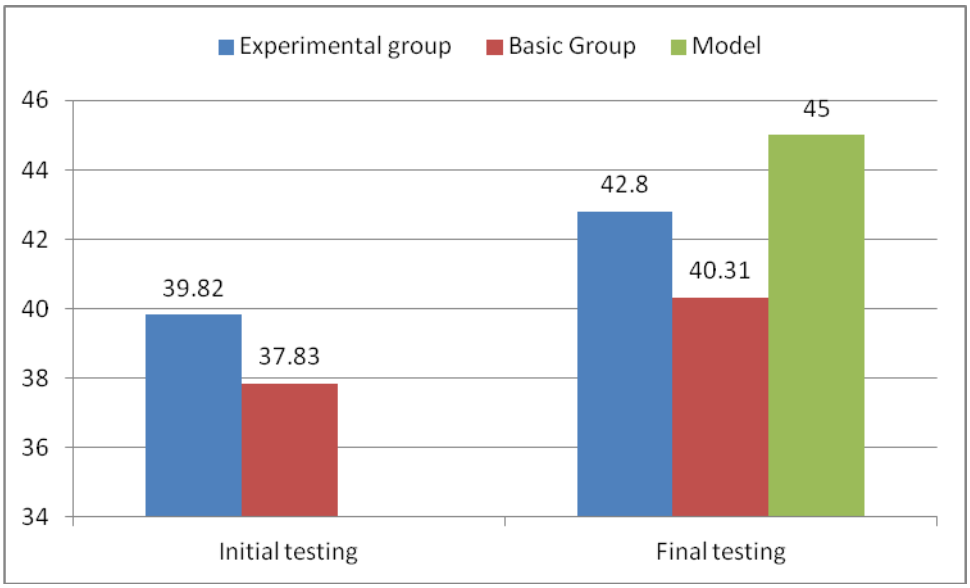

Fig. 2. Vertical jump (dynamic environments between tests compared with the model)

Differences between initial and final tests experimental group is highlighted that "t" calculated value 3.44 is greater than "t" spreadsheet (Fisher) at the threshold of significance 0.01, showing significant differences between tests. Regarding the control group the value of "t" is calculated as 2.13 lower than the "t" statistically significant differences between the tests resulting in p> 0.05. Noting the differences between experimental groups and control environments in initial testing, it highlights that "t" calculated value 0.99 is less than "t" statistic at p> 0.05, insignificant and the test result is final "t" calculated 2.16 value is greater than "t" statistically significant result.

Running speed 30 m (sec) (Table 1, Fig. 3). In initial testing it was found that the experimental group arithmetic average values are 5.63 sec. with an average error of 0.14 sec., while the control group are 5.87 sec. with an average error of 0.11 sec.

The final test, arithmetic mean values of the experimental group reached 5.31 sec. with average error of 0.08 sec., while the control group mean values reach 5.66 sec. with average error of 0.14 sec. It is noted that the experimental group was closer to the model values from literature.

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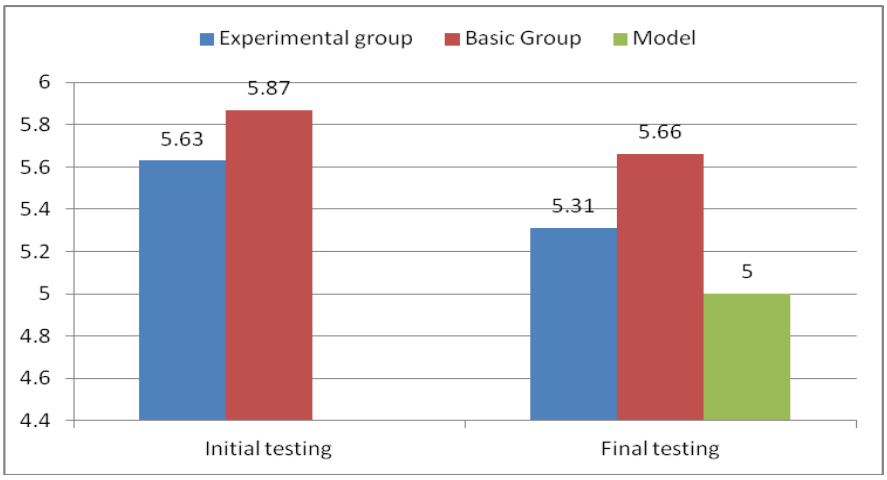

Fig. 3. Running speed 30 m (dynamic environments between tests compared with the model)

Differences between initial and final tests experimental group is highlighted that "t" calculated value 3.11 is greater than "t" spreadsheet (Fisher) at the threshold of significance 0.01, showing significant differences between tests. Regarding the control group the value of "t" is calculated as 2.10 lower than the "t" statistically significant differences between the tests resulting in p> 0.05. Noting the differences between experimental groups and control environments in initial testing, it highlights that "t" calculated value 1.35 is less than "t" statistic at p> 0.05, insignificant and the test result is final "t" calculated 2.18 value is greater than "t" statistic at p <0.05, the result being significant.

Abs in 30 seconds. (no. of repetitions) (Table 1, Fig. 4). In initial testing of the experimental group arithmetic mean values are 27.78 repetition with repetition error of the mean 0.71 and 26.17 of the control group are 0.9 repeats the error of the mean repetition.

The final test, arithmetic mean values of the experimental group reached 29.5 repetitions with the mean error of 0.54 repetitions, while the average values of the control group reached 27.6 repetitions with the mean error of 0.69 repetitions. It is noted that the experimental group was closer to the model values from literature.

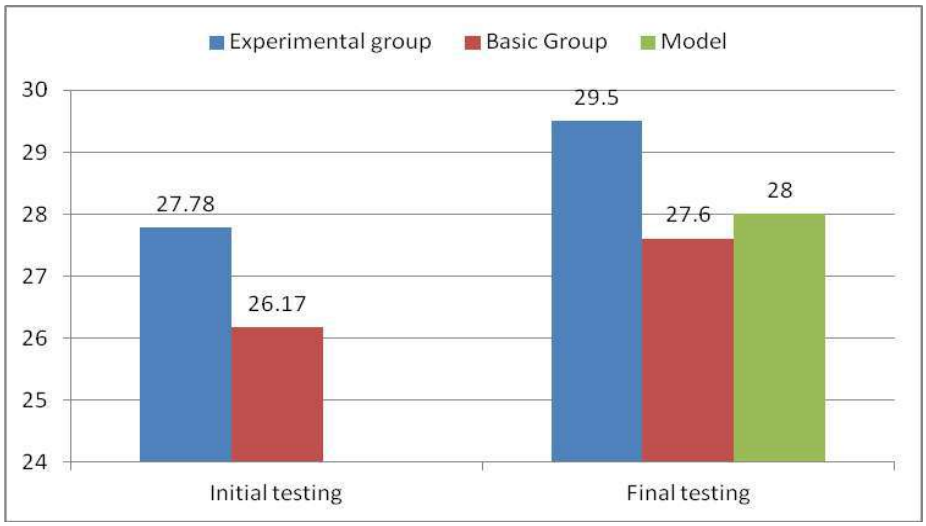

Fig. 4. Abs in 30 seconds (dynamic environments between tests compared with the model)

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Differences between initial and final tests experimental group is highlighted that "t" calculated value 3.38 is greater than "t" spreadsheet (Fisher) at the threshold of significance 0.01, showing significant differences between tests. Regarding the control group the value of "t" is calculated as 2.22 higher than the "t" statistically significant differences between the test result at p <0.05.

Noting the differences between experimental groups and control environments in initial testing, it highlights that "t" calculated value is less than 1.4 "t" statistic at p> 0.05, insignificant and the test result is final "t" calculated 2.17 value is greater than "t" statistic at p <0.05, the result being significant.

Push-ups (no. max. of reps). (Table 1, Fig. 5). In initial testing it was found that the arithmetic mean values of the experimental group of repetitions with a 10.67 average error of 1.8 repetitions, while the control group are 9.08 repetitions with a mean error of 1.5 repetitions .

The final testing of the experimental group arithmetic mean values reach 14.88 repetitions with the mean error of 0.97 repetitions, while the average values of the control group reached 11.51 repetitions with the mean error of 1.23 repetitions. It is noted that the experimental group was closer to the model values from literature.

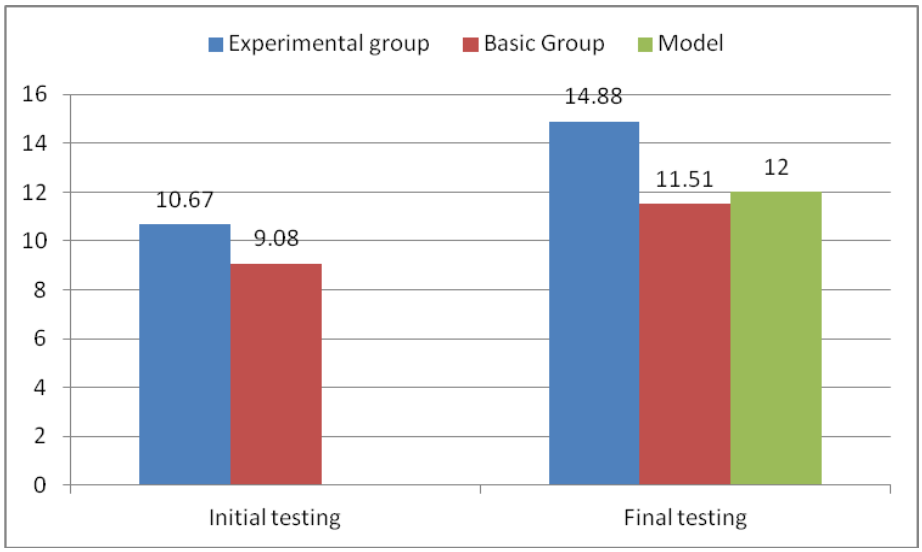

Fig. 5. Push-ups (dynamic environments between tests compared with the model)

Differences between initial and final tests experimental group is highlighted that "t" calculated value 3.19 is greater than "t" spreadsheet (Fisher) at the threshold of significance 0.01, showing significant differences between tests. Regarding the control group the value of "t" is calculated as 2.24 higher than the "t" statistic, also resulting in significant differences between tests at p <0.05.

Noting the differences between experimental groups and control environments in initial testing, it highlights that "t" calculated value 0.68 is less than "t" statistic at p> 0.05, insignificant and the test result is final "t" calculated 2.15 value is greater than "t" statistic at p <0.05, the result being significant.

Running resistance 600 m (min.) (Table 1, Fig. 6). In initial testing of the experimental group arithmetic average values are 3.97 min. with average error 0.11 min. and the control group are 3.76 min. with average error 0.09 min.

The final testing of the experimental group arithmetic mean values reach 3.65 min. with average error of 0.16 min., while the control group mean values reach 3.86 min. with average error of 0.17 min. It is noted that the experimental group was closer to the model values from literature.

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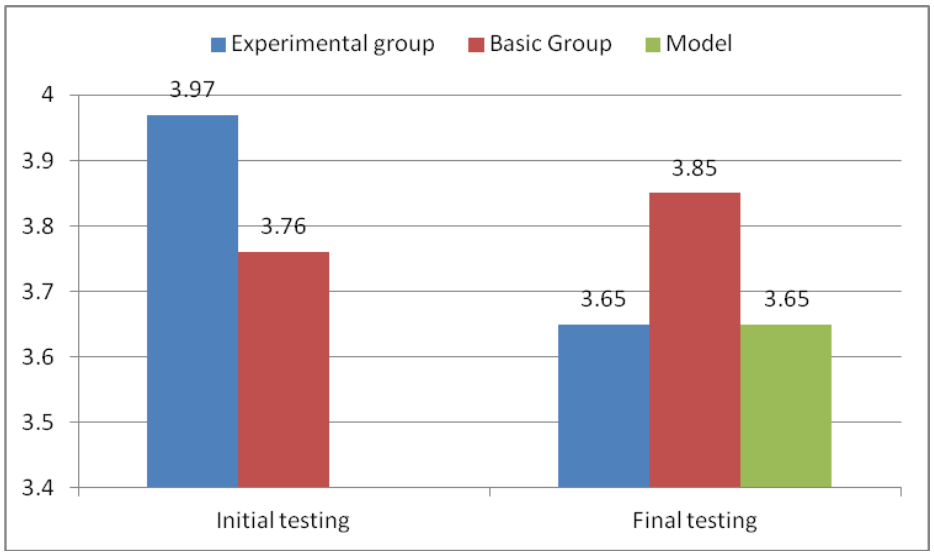

Fig. 6. 600 m Running resistance (dynamic environments between tests compared with the model)

Differences between initial and final tests experimental group is highlighted that "t" calculated value 2.96 is greater than "t" spreadsheet (Fisher) at the threshold of significance 0.05, showing significant differences between tests. Regarding the control group the value of "t" is calculated as 3.98 higher than the "t" statistic, also resulting in significant differences between tests at $p < 0.01$.

Noting the differences between experimental groups and control environments in initial testing, it highlights that "t" calculated value 1.47 is less than "t" statistic at $p > 0.05$, insignificant and the test result is final "t" calculated 0.47 value is less than "t" statistically insignificant result.

Conclusions

1. After analyzing the literature, the process of preparing instructional basketball training of the students shows that the training programs of athletes have not a unique design and morphological characteristics depending on the level of preparation them. Findings aspects of using games in training athletes in basketball preparation of representative teams show that they can improve teaching content at the same time increasing exercise capacity at the students.
2. Finding experiment results show that the physical preparation, technical and functional students are below average in Romania specialized model to test most of the indicators, which shows the need for interventions to optimize this important factor of physical training.
3. General motility testing shows increases in value in both groups included in the experiment, with results higher in the experimental group $p < 0.05$. Games preparatory teaching applied in the experiment showed a significant influence on all physical evidence tested, it was argued by both arithmetic differences between the test and the coefficient of significance ($p < 0.01$) in most samples, except samples speed and resistance to experimental group and the sample standing long jump in group control ($p > 0.05$).
4. The survey results show improvement in somatic indices, motor, functional and technical preparatory games by effective implementation of the lessons of training and capacity building effort positively affects basketball students, thus confirming the assumption made at the beginning of scientific research.

References

Sakizlian R., (2011). *Optimizarea capacităţii de efort a studenţilor baschetbalişti*, Bucureşti: Ed.Universităţii, pp. 141-160.