OPTIMIZATION OF TECHNICAL TRAINING OF THE HANDBALL PLAYERS (BEGINNERS) IN ACCORDANCE WITH THE EXPERIMENTAL CORRELATION INDICES

Grigori Căpăţână[a], Ruslan Verejan[b], Maria Verejan [c]
[a,b] *State University of Physical Education and Sport, 22, A. Doga str., Chişinău MD-2024, Republica Moldova,* [c] ***Sports School, Ialoveni,*** Republic of Moldova

Abstract

Formulations made by scientists in the field gives us a conclusion about the technical preparation in general and in particular about the handball, but the results from the experiment in the use of technology convince our combination of rigor, as using mathematical and statistical methodology. Correlation between the experimental indexes permit to make a correct selection by means of performing a perfect technique. The technical training is represented by all measures adopted in the process of training, organizing and applied methodology with the purpose of assimilating technique, specific for definite branch of sport. Sports branch differ from each other by a system of specific motor structures which, performed according to the rules, lead to obtaining performance.

Keywords: handball players (beginners), correlation coefficient, selection, technique game.

1. Introduction

Ozolin N.G. (1972) referring to sports technique said that it represents "modalities performing the physical exercise ". In the same context Harre D. coord. (1973) also appreciates that the technique is a special system of movement which a is executed (performed) simultaneously or successive, directed to rational organizing of changes in internal and external forces so as to permit to achieve the best performance.

The Romanian specialist Siclovan I. (1977), defines technique as " overall of actions and movement procedures, which by their form and specific contents provides the possibility of practicing a sports branch or an event in accordance with the provisions of the rules in force, makes up the sports technique of respective sport ". Dragnea A. (1996) says that the technique represents "a system of motor structures specific for each sports branch , made rationally and economically in order to obtain maximum efficiency in competitive ".

2.Hypothesis

The mathematical apparatus denotes the authenticity of used tests. The investigation on the physical development of handball players (beginners) show that more sensible is the structure system which represents muscle fibers relatively longer then in adults and the tendons positions are shorter and richer in sarcoplasm and water.

Conjunctive tissue is the predominant at the level of muscle fiber (Demeter A., 1972). Muscle tone and neuromascular excitability are lover which favour the amplitude (range) of movements in articulations but lovers their precision and fairness we also exertained the reaction rate and good performance which is not supported sufficiently force . The studies carried out at the age of 10, denote that 10 year old girls achieve 37% and boys 75% of the speed that they will develop at the lend of their growth period (Mazilu V. and colab., 1973).

Sovetov A., cited by Ionescu A. and Mazilu V. (1968) , affirms that muscles represent 27,2 % of the body weight in the 9 year old pupil. The physical exercises applied to children at this age will toning posture muscles , even the correction of deficiences in posture .

Strength exercise should not touch the maximum load that can cause muscle and ligament lesions . For beginners in handball it is necessary to act in order to develop all muscle groups in the most harmonius method , using their own body weight training muscle groups directly involved in performing the movement characteristic to handball are done by means of specific events, but the economy of actions was determined by correlation coefficient in the following events : throwing a target , dribbling between cones and passes from displacement.

The goals of research (investigation) consists in pointing out some indexes of technical preparation. Initial and final testing are statistically significant at a level of $P<0,01$ experiment group and $P<0,05$ in control group. The difference between group average at the final testing , are statistically significant for the value of $t=2,04$ at a significance threshold of $P<0,05$.

In this testing results the contribution brought by more efficient technical preparation was carried out by the experimental group contributed to achieving top results in comparison with the control group.

Applied methods . The performance of technique procedures reveals that the research subjects are at the beginning of specialized training in the preliminary selection stage and in accordance with the marks received at the initial testing is very low-respectively $5,09\pm0,56$ in the experimental group and $5,12\pm0,57$ in the control group.

The research results were obtained in Sports School nr.2 from Chisinau, revealing a dramatic development in experimental group which obtained an average of 8,41±0,39 in comparison with control group, which made an average of 7,68±0,45. Together with increasing performance , we found out that the homogeneity of the group increase.

The increase of each group between the two testing in statistically significant at a significance level of P<0,01 in experimental group at P<0,05 . Progress of 3,32 points achieved by experiment group at final testing in comparison with the control group which points 2,56 leads to a statistically significant difference in favor of the experimental group , the value of t=2,18 materiality threshold of P<0,05.

The specific training at this age leads to a greater rate involvement of subjects in achieving training preparation and their desire to improve their performance, resulted in getting the significant progress at the end of the investigation . Supplementarily stimulated by the multitude of dynamic games and specific ball exercises , experimental group achieved higher values in comparison with the control group at the final testing , statistically significant except of the event in passes in 2 from the place. This can be explained by the fact there are few exercises that are performed on the in the game, this action is of low value. At the same time , technical training input is materialized in obtained results of the other events by the members of the experimental group.

Correlative analysis of the research indices being under investigation explains the connection between them, on technical training, between technical preparation and physical one , general and specific. The existence of correlation between indices of technical preparation shows that when we work to improve one of them we shall influence positively or negatively upon other indices. Making correlation between the technical preparation indices and of physical it is shown what indices of physical preparation , general and specific we will act upon we act indirectly when we train some specific techniques for handball game.

This technical performance correlates positively with the wall passes (r=0,648 to p<0,001), the correlation being negative with the passes in desplacement (r=-0,693 to p<0,001).The value of marks from technical performance correlates positively with throwing target points (r=0,359 to p<0,05), but it doesn't correlate with desplacement in dribbling between cones (r=0,120 to p >0,05).

The passes at the wall correlates positively with dribbling between cones (r=0,284 to p<0,05) and with target throwing (-0,731 to p<0,001), but it correlates negatively with the passes in deplacement (r=0,768 to p<0,001). Significant correlations are also performed among dribbling cones and speed running of 30m (r=0,644 to p<0,001), positive correlation , but in long jumping a negative correlation (r=0,795 to p<0,001). Passes at the walls provides a positive correlation with speed running 30m (r=0,287 to p<0,05).

Movement (deplacement) in triangle and target throwing (r=0,450 to p<0,001), events between which apparently there are no connections, also make a positive correlation.

We consider that nearly half of the indices of specific physical preparation and those of technical preparation (training) achieve significant statistic correlations without any selection of means introduced in technical training model .

The analysis of the indices during research revealed some aspect which confirm the correctiveness of assumptions made at beginning of the experiment . In the somatic indices there were not discovered significant differences between the two groups. Only the increase of height between the two tests at both groups is statically significant, this fact is due to the normal development of children at the age of 10-11 years .

The functional capacity of subjects register significant differences in all parameters between the initial and final testing , the fact is due to the normal development of children all this age. Parameters of vital capacity and also of the index Ruffier present statically significant differences in final testing in favor of the experimental group, fact that can be attributed to the preparation process conducted by us with experimental group.

The analysis of physical training, general indices and specific, reveals the fact that only in the speed events of 50m and 30m are not achieved significant statistically differences between the average data neither between those two testing no in those two groups . All other parameters register statistically significant differences both in those two testings and in the final testing between those two groups in favor of experimental group.

Conclusions

- The results achieved in the experimental group are significantly higher, demonstrated by means of correlation coefficient obtained.
- The economics of performed technical event were confirmed by the correlation of experimental indices.

References

1. Capăţină G.A., (1991). *Initial preparation (training) of handball players (beginners) of 10-11 years old with the aid of training devices (apparatuses) in teaching and training process*. Chiev,192 p.
2. Rizescu C., (2008). *Technical preparation of handball players (beginners) by means of phasing the specific methods*. Chisinau ,165 p.