THE SIGNIFICANCE OF THE TACTICAL TRAINING OF VOLLEYBALL PLAYERS OF DIFFERENT SKILL LEVELS IN THEIR PLAY ACTIVITIES

Artemenko B.O.
Cherkasy National University

Annotation. *Purpose*: To determine the features of tactical thinking volleyball players of different skill levels and the importance of this function during their competitive activities. *Material and methods*: the study involved in 28 different sports categories players aged 17-34 years. Used interactive methods «Volleyball-Test». *Results:* revealed that the level of masters of sports players had values at 64.22 % - tactical thinking in the attack, and 59.46 % - tactical thinking in defense. Accordingly - Candidate Master of Sports (42.24 % and 40.19 %) and players I-III bits (34.44 % and 28.89 %). The dependence of the quality of players in competitive activity level masters of sports of tactical thinking in the attack at r = 0,66, and to protect r = 0,54. As appointed a relationship as competitive activities and tactical thinking of attacking r = 0,58. The player I-III bits of data dependencies as competitive activities of tactical training have been identified. *Conclusions*: The set features suggest the development of tactical thinking in sports games acquiring playing experience of the players.
Key words: volleyball, tactics, preparation, physiological, sports games.

Introduction

In modern sport the highest mastery level is achieved by the athletes possessing a set of specific abilities; a special place among them is occupied by physiological indicators [1, 2, 4, 8, 9, 16]. Relating to sport games, it is an ability of quick orientation at the playground and finding efficient adequate decision. At the same time, scientific literature contains a lot of materials concerning the influence of certain psycho-physiological and neurodynamic functions on sport activity progress. Thus, the works of Z.L. Kozina [5], G.V. Korobeinikov [6], L.S. Frolova, I.D. Hlazyrin [15] point out that the mastery of technical and tactical playing techniques in sport games depends on the development of psycho-physiological functions. Besides, L.S. Frolova, I.D. Hlazyrin and V. Suprunovych [12] distinguish tactic thinking in cognitive component as a basis element of playing progress in sport games.

Volleyball is a type of sport games that requires constant activity of the cerebral cortex of the brain for processing, analysis and synthesis of the information received during competitive activity. In its turn, it has an influence upon the development of certain psycho-physiological functions. Types of thinking are known to have the same physiological basis [3, 11]. However, the solution of tactic tasks by different sportsmen has a definite specific character because of different brain activity in the process of solving concrete playing situations [3, 16]. It is explained by the inductive character of thinking and its close connection with creative talent and experience [3]. Literature sources show that players solve the tasks of the same complexity in a different way in sport games; they take different decisions in the same playing situations. The complexity of choice situation, irrespective of whether they are standard schemes or players' non-standard actions, consists in information limitation because of time limits for its perception and analysis; it means that tactic thinking essentially depends on the formation of its operating components [10, 18, 19].

Nowadays, there are various scientific approaches relating to the study of thinking development and its control in the sport games. There are proposed methods for determining and estimating sportsmen's psycho-physiological properties; however, they do not give complete and reliable information about the development of sportsmen's thinking in playing situations [14]. The modern interpretation of tactic thinking in team sport games is confined to players' abilities to estimate the playing situations quickly and to solve them efficiently while realizing numerous tactic tasks of a team [13].

Since the sport games have high requirements to sportsmen's physical and technical abilities as well as to the development level of all forms of tactic preparedness [7, 20], it gives us the reason to determine the importance of players' tactical preparedness during their competitive activity.

Purpose, tasks of the work, material and methods

The purpose of the work is to determine the features of tactic thinking development of volleyball players with different mastery level and the importance of the given function during their competitive activity.

Research Methods. The following scientific methods are used in the research: analysis, synthesis, systematization of scientific and scientific-methods literature, publications, computer testing of psycho-physiological functions.

Research Organization. The research is conducted on the basis of "Sumyhimprom" SC, Sumy city, which is the participant of Ukraine championship among the teams of Super League, and "SumDU" VC, Sumy city, which is the representative of Ukraine championship among the teams of Higher League. 28 players of different sport grades from the III grade to the Sport Masters aged 17-34 take part in the research.

Results of the research

To determine the development features of volleyball players' tactic preparedness we use the computer program developed by scientific group of Cherkasy National University (Volleyball-Test) and determine that the level of

doi: 10.6084/m9.figshare.894384

volleyball players' tactic thinking increases with age and playing experience acquisition (Table 1); thus, we confirm the available data concerning the signs and formation of tactical thinking in sport games [14, 15].

Table 1

The development level of tactic thinking volleyball players with different mastery level

Sport Grade	SM n (6)	CSM n (8)	I-III grades n (14)
Tactic thinking in offense, %	64,22*	42,24	36,11
Tactic thinking in defense, %	59,46*	40,19	28,89

Note: * – $p < 0.05$ reliable difference of indexes for Sport Masters and the players of the lowest sport grades

The obtained data of tactical preparedness of volleyball players of different mastery level show that the players of Sport Master level have the indexes of 64.22% in tactic thinking in offense and 59.46% in tactic thinking in defense that differ reliably from the analogical indexes of Sport Master Candidates (42.24% and 40.19%) and the players of the I-III grades (36.11% i 28.89%) respectively ($p<0.05$). This feature can be explained by the fact that Sport Masters represent, as a rule, professional teams of Ukraine championship while the rest of the players are the representatives of amateur, student teams or Higher League of Ukraine championship where young players lack playing practice and the competitive level is much lower than among the players of Ukraine Super League Championship. These features are not casual, since the correlation analysis of the influence of this players' function on the quality of their competitive activity shows the dependence on Sport Masters' tactic thinking in offense at the level of [$r = 0.66$ ($p<0.01$)] and in defense [$r = 0.54$ ($p<0.02$)] that confirms the importance of this function for players and special attention to the ways for the development of tactical thinking. At the same time, the correlation of competitive quality and tactical preparedness among Sport Master Candidates is found only in tactical thinking in offense [$r = 0.58$ ($p<0.02$)]; the dependence of competitive quality on tactical preparedness is not found among the players of I-III grades, that can be explained by the lack of necessary playing experience and the dependence of competitive activity mostly on other factors, particularly, on physical development, physical and coordinative preparedness and others (Fig.1).

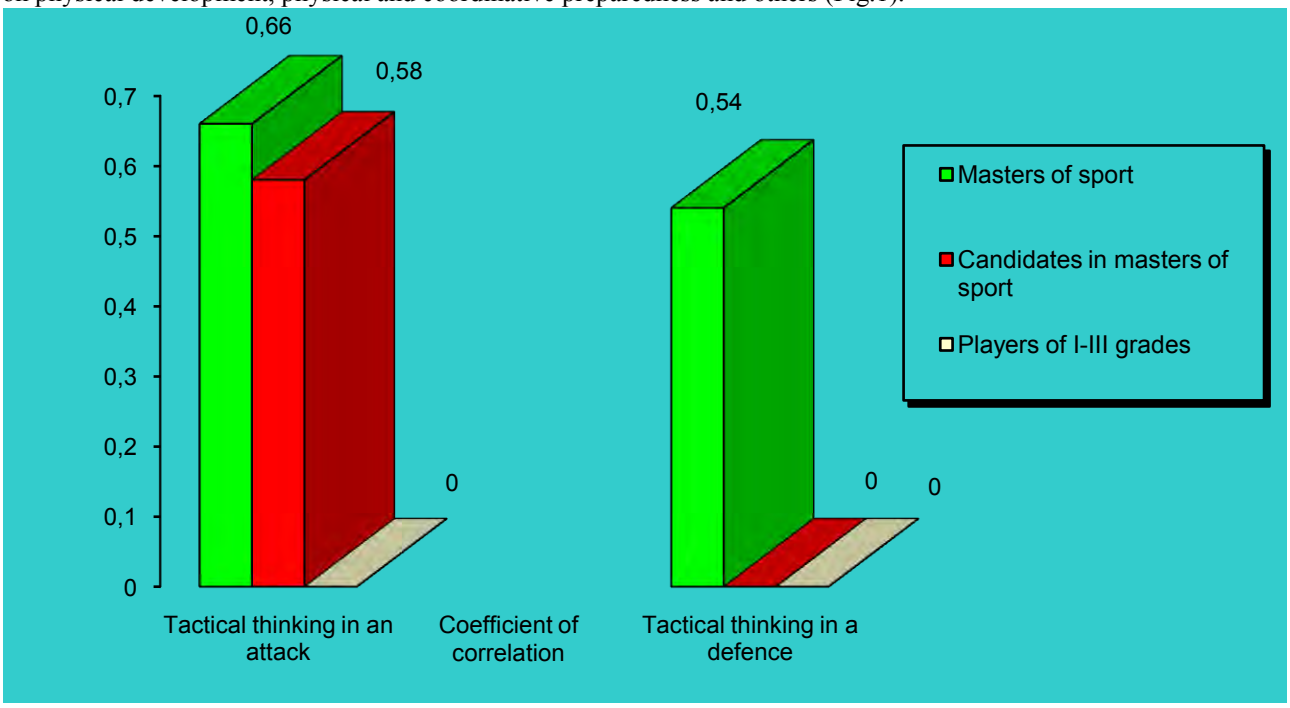

Fig. 1. The dependence of competitive quality of volleyball players of different mastery level on tactical preparedness

Conclusions:

Summarizing all the above mentioned we can make the following conclusions:

1. The players of different sport grades are found to have different indexes of tactical preparedness. Thus, Sport Masters have the indexes at the level of 64.22% - tactic thinking in offense and 59.46% - tactic thinking in defense that differ reliably from the analogical indexes of Sport Master Candidates (42.24% and 40.19%) and the players of the I-III grades (36.11% and 28.89%) respectively ($p<0.05$).

2. The correlation analysis shows the importance of tactical preparedness in professional sport games:

- Sport Masters - the dependence of competitive quality on tactical thinking in offense at the level of [$r = 0.66$ ($p<0.01$)] and in defense [$r = 0.54$ ($p<0.02$)];
- Sport Master Candidate - the dependence of competitive quality on tactical preparedness in offense is at the level of [$r = 0.58$ ($p<0.02$)];

- Players of the I-III sport grades - the dependence of competitive quality on tactical preparedness is not found.

The obtained data confirm the importance of tactical thinking in sport games and help to stress the necessity of special attention to the process of tactical preparedness in sport games with the aim of improving competitive quality of volleyball players with the means of interactive technologies.

The further research perspective consists in the application of the developed methods in tactical training in professional teams and sport schools with the aim of tactical preparedness of players and possible improvement of their competitive activity, respectively.

References:

1 Volkov L.V. *Teoriia i metodika detskogo i iunosheskogo sporta* [Theory and methods of children and youth sports], Kiev, Olympic Literature, 2002, 296 p.

2 Glazirin I.D. *Plavannia* [Swimming], Kyiv, Condor, 2006, 502 p.

3 Dzhordzh F. *Mozg kak vychislitel'naia mashina* [Brain as calculative machine], Moscow, Foreign Literature Publishing, 1963, 528 p.

4 Ignat'eva V.IA., Petracheva I.V. *Mnogoletniaia podgotovka gandbolistov v detsko-iunosheskikh shkolakh* [Long-term training of handball players in children-youth schools], Moscow, Soviet sport, 2004, 216 p.

5 Kozina Zh. L. *Slobozhans'kij naukovo-sportivnij visnik* [Slobozhansky scientific and sport bulletin], 2006, vol.9, pp. 157-165.

6 Korobejnikov G. V., Bitko S.M., Sakal' L.D., Kulinich I.V. *Aktual'ni problemi fizichnoyi kul'turi i sportu* [Actual problems of physical culture and sport], 2003, vol.5, pp. 53-60.

7 Lisenchuk G. A. *Upravlenie podgotovkoj futbolistov* [Training management of football players], Kiev, Olympic Literature, 2003, 271 p.

8 Makarenko M.V. *Osnovi profesijnogo vidboru vijs'kovikh specialistiv ta metodiki vivchennia individual'nikh psikhofiziologichnikh vidminnostej mizh liud'mi* [Fundamentals of professional selection of military specialists and methods of studying individual physiological differences between people], Kiev, 2006, 395 p.

9 Maksimenko I.G. *Fiziceskoe vospitanie studentov* [Physical Education of Students], 2012, vol.2, pp. 60-62.

10 Nepopalov V. N., Abalian A. G.*Teoriia i praktika fizicheskoj kul'tury* [Theory and practice of physical culture], 2006, vol.6, pp. 44-46.

11 Korobkov A.V. M. *Normal'naia fiziologiia* [Normal physiology], Moscow, High school, 1980, 560 p.

12 Glazirin I.D., Frolova L.S., Frolov O.O., Bondar V.V., Zganiajko G.V., Vernigora V.V., Golovatij V.M., Suprunovich V.O. *Biuleten'* [Bulletin], 2009, vol.16, p. 3.

13 Poplavs'kij L. Iu. *Basketbol* [Basketball], Kiev, Olympic Literature, 2004, 448 p.

14 Suprunovich V.O. *Teoriia ta metodika fizichnogo vikhovannia* [Theory and methods of physical education], 2008, vol.8, pp. 10-14.

15 Frolova L. S., Glazirin I.D. *Teoriia ta metodika fizichnogo vikhovannia* [Theory and methods of physical education], 2008, vol.1, pp. 109-113.

16 Shestakov M. P. *Gandbol* [Handball], Moscow, Sports Academic Press, 2001, 132 p.

17 Shinkaruk O. *Teoriia ta metodika fizichnogo vikhovannia* [Theory and methods of physical education], 2002, vol.1, pp. 34-42.

18 Cherif Moncef, Gomri Dagbaji, Aouidet Abdallah, Said Mohamed. The offensive efficiency of the high-level handball players of the front and the rear lines. *Asian Journal of Sports Medicine*. 2011, vol.2(4), pp. 241-248..

19 Malina R.M., Ribeiro B., Aroso J., Cumming S.P. *Characteristics of youth soccer players aged 13–15 years classified by skill level. British* Journal of Sports Medicine. 2007, vol.41, pp. 290-295.

20 Memmert D. Testing of Tactical Performance in Youth Elite Soccer. *Journal of Sports Science and Medicine*, 2010, vol.9. pp. 199-205.

Information about the author:

Artemenko B. A.: ORCID: 0000-0002-2746-9445; bogdan198803@mail.ru; Cherkasy National University; Shevchenko Boulevard 81, Cherkassy, 18031, Ukraine.

Cite this article as: Artemenko B.O. The significance of the tactical training of volleyball players of different skill levels in their play activities. *Pedagogics, psychology, medical-biological problems of physical training and sports,* 201, vol.1, pp. 9-12. doi:10.6084/m9.figshare.894384

The electronic version of this article is the complete one and can be found online at: http://www.sportpedagogy.org.ua/html/arhive-e.html

Received: 11.10.2013
Published: 28.12.2013