

# PSYCHOLOGICAL TOOLS TO IMPROVE THE RELIABILITY OF TECHNICAL AND TACTICAL ACTIONS IN FOOTBALL

<sup>1</sup>Nikolay B. Vorobyov, <sup>2</sup>Anatoly V. Laptev, <sup>3</sup>Svetlana S. Ivanova, <sup>4</sup>Irina Y. Burkhanova, <sup>5</sup>Maxim M. Kutepov, <sup>6</sup>Anastasia V. Stafeeva

<sup>1</sup>PhD in Psychology, Associate Professor of the Department of Physical Education Theoretical Foundations, Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod, Russia. E-mail:

[nikolay.nn@mail.ru](mailto:nikolay.nn@mail.ru)

<sup>2</sup>PhD in Education, Associate Professor of the Department of Theory and Methods Sports Games, Moscow State Academy of Physical Education, Moscow Russia. E-mail: [nafany\\_bison@inbox.ru](mailto:nafany_bison@inbox.ru)

<sup>3</sup>PhD in Education, Associate Professor of the Department of Physical Education Theoretical Foundations, Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod, Russia. E-mail: [svetlana-604@mail.ru](mailto:svetlana-604@mail.ru)

<sup>4</sup>PhD in Education, Associate Professor of the Department of Physical Education Theoretical Foundations, Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod, Russia. E-mail:

[irina2692007@yandex.ru](mailto:irina2692007@yandex.ru)

<sup>5</sup>PhD in Education, Associate Professor of the Department of Physical Education and Sport, Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod, Russia. E-mail: [kmm-asb@mail.ru](mailto:kmm-asb@mail.ru)

<sup>6</sup>PhD in Education, Associate Professor of the Department of Physical Education Theoretical Foundations, Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod, Russia. E-mail:

[staffanastasiya@yandex.ru](mailto:staffanastasiya@yandex.ru)

## Abstract

The relevance of the presented topic is caused by the fact that the experts carrying out the activity in sports schools on football, pay insignificant attention to the psychological factors determining efficiency of competitive activity in this kind of sport. Meanwhile, these factors have a significant impact on the performance of the player, as a consequence, the timely identification of the above problem and its solution in the preparation of football players will improve the effectiveness of training and competitive processes. The purpose of work is development on the basis of studying of literary sources and experience of football experts of the recommendations promoting optimization of psychological indicators of players influencing reliability of performance of game receptions during competitions. The leading method of research of the given theme is the analysis of activity of experts in the sphere of physical culture who are carrying out the activity in establishments of additional education and sports schools on football, and also the analysis of competitive activity of football players. Research methods: survey, analysis, observation, testing and graphical interpretation of data. The article presents the results of a study aimed at identifying the relationship between some psychological indicators of football players and the effectiveness of their technical and tactical actions. The article also presents recommendations to improve the reliability of competitive performance of football players, through the use of psychological practices that reduce the negative impact of certain mental states on the player's personality. The materials can be applied in the training of football players of different skill levels.

**Keywords:** physical education specialist, professional activity, research competencies, educational issues

## INTRODUCTION

Competition in football is not only a way to determine the winner, but also the main means of football player's training, improving his sportsmanship, control of the level of preparedness, etc. (Valco et al., 2019) As one of the most informative criteria of competitive activity it is customary to use indicators of volume, versatility, accuracy of technical and tactical actions of players. This parameter is influenced by many factors, the skill level of the player, his physical, technical and tactical readiness, the class of the opposing team etc. (Kanbul et al., 2021). Besides, the competitive activity of football players is connected with considerable nerve-emotional influences on their psyche (Vorobyov & Kolesnikova, 2014). In this regard, the importance of the psychological factor cannot be underestimated, as it has a significant impact on the effectiveness of game action in the presence of confounding factors. Proceeding from the above, the problem of increasing the reliability of competitive activity of football players is attracting increasing attention of specialists (Golomazov & Chirva, 2002; Nevmyatov, 1998; Tyulenkov, Guba & Prokhorov, 1997; Klesov & Dashkevich, 1993; Drozhalkin, 2015).

Reliability is assessed according to the dynamics of the competitive performance of football players under the action of knockdown factors. If the dynamics is positive, i.e. the player's performance is not significantly reduced, it can be assessed as reliable (Sokolov & Sedov, 2014).

Competitive activity in football, is mediated by the athlete's personality, its psycho-regulatory mechanisms, which develop in this process and actively influence the reliability of activity (Zaimentsev, 2015). The most significant indicators that ensure the effectiveness and reliability of competitive activity of football players are the following: competitive motivation, self-regulation, emotional stability, stability-adjustment, anxiety, etc. (Polishkis, Klesov & Dashkevich, 1998).

Consequently, the psychological factor is one of the most important in determining the reliability of a football player because the execution of complex technical techniques is impossible without mental regulation, as a high level of mental tension significantly affects the

functional changes of the body's internal systems (Melcher & Melnik, 2016; Nifontov, 2008).

The novelty of the study lies in the fact that in this work in the educational and training process of football players were introduced means affecting the psychological indicators that affect the reliability of the performance of technical and tactical actions during the competition. In particular, personal competitive anxiety, interference tolerance, competitive emotional stability, neuro-psychological tension was highlighted.

Based on the above, we proposed the following hypothesis: the use of tools in the educational and training process of players, aimed at optimizing the psychological indicators of players will increase the reliability of technical and tactical actions.

## Methodological Framework

The prerequisites for this study, aimed at developing recommendations that contribute to the optimization of psychological indicators of players, affecting the reliability of playing techniques during competitions, were the following theoretical-methodological and practical contradictions:

- Between the increasing need of society to improve the system of sports training, the development of mass sports and the lack of modern approaches to the training of high-class specialists capable of implementing all types of athletes' training, including psychological training (Serebrovskaya, Suvorova & Dunaeva, 2020; Kruchinina & Filonov, 2020);
- Between the need to introduce psychological and pedagogical tools in the training process of athletes in various sports and the existing system, which provides a formal approach to the implementation of this component of training (Vorobyov et al., 2021).
- Between the need to form the athlete's personality and the lack of personality-oriented basics of sports training (Stafeeva et al., 2020).

## Results

It should be noted that sporting activities are different from other human activities. Sports psychologists distinguish the most general and at the same time very specific conditions of sports activity, in which (one of the features) the object of human consciousness and will in achieving high sports results is primarily his own body. Another peculiarity of sports activity: the compulsory competitive struggle for high results implies that an athlete in extreme conditions must display the entire arsenal of qualities that constitute his reliability.

It is rather difficult to cover the whole range of factors influencing the efficiency of competitive activity in a single study. Therefore, to

determine the subjects' competitive reliability the following parameters were selected: competitive emotional stability; interference tolerance; personal competitive anxiety; neuropsychological tension; effectiveness of technical and tactical actions.

To determine the above mentioned parameters we used the following techniques: psychic reliability questionnaire by V.E. Milman (1983); NMSI questionnaire (nervous-psychic tension signs) by T.A. Nemchin (Rogov, 1999); modified personal competitive anxiety scale by R. Martens (Rogov, 1999). Efficiency of technical and tactical actions (hereinafter referred to as TTD) was recorded by pedagogical observation with further statistical accounting (Prosandeev, 2007).

Table 1. *Data from the baseline study*

|                 | The Millman methodology          |                         | The Martens methodology      | The Nemchin methodology   |                       |
|-----------------|----------------------------------|-------------------------|------------------------------|---------------------------|-----------------------|
| Test takers     | Competitive emotional resilience | Interference resistance | Personal competition anxiety | Neuropsychological stress | TTA effectiveness (%) |
| 1               | -5                               | -3                      | 19                           | 58                        | 38                    |
| 2               | -3                               | 0                       | 24                           | 67                        | 42                    |
| 3               | -2                               | -1                      | 21                           | 62                        | 44                    |
| 4               | -4                               | -3                      | 18                           | 74                        | 32                    |
| 5               | 1                                | 1                       | 25                           | 56                        | 55                    |
| 6               | -3                               | 0                       | 20                           | 64                        | 60                    |
| 7               | -5                               | -4                      | 22                           | 72                        | 42                    |
| 8               | -1                               | -2                      | 26                           | 78                        | 38                    |
| 9               | 0                                | 1                       | 21                           | 53                        | 57                    |
| 10              | -3                               | -3                      | 18                           | 65                        | 39                    |
| Arithmetic mean | -2,5                             | -1,4                    | 21,4                         | 64,9                      | 44,7                  |

The next stage of the ascertaining study was to determine the relationship between the studied personal indicators and the effectiveness of technical and tactical actions (Zheleznyak & Petrov, 2002). Correlational analysis revealed the following results: there is a medium positive relation ( $r = 0.613$ ,  $p < 0.05$ ) between emotional stability and effectiveness of technical and tactical actions; between astonishment indices and effectiveness of technical and tactical actions a strong positive relation was revealed ( $r = 0.792$ ,  $p < 0.05$ ); between a level of nervous-psychic tension and effectiveness of technical and tactical actions there was a middle by strength negative connection ( $r = -0.634$ ,  $p < 0.05$ ); between indices of the personal

competitive anxiety and effectiveness of actions no statistically significant connection was revealed ( $r = -0.209$ ,  $p > 0.05$ ).

The analysis of TTC efficiency of the players who took part in the research has shown that there is an uneven ratio of TTC efficiency during three games, which indicates a low reliability of performance of game techniques.

The results obtained became the basis for the formative stage of the research work in the course of which, in the process of football players' training included psychological practices that contribute to improving the reliability of competitive activity. The proposed recommendations included: conversations with

players, suggestion, auto-training, self-infusion, self-persuasion, and self-strike (Prokhorova, 2004; Schultz, 1985; Solovyova, 2019). Here are some examples. Such methods of self-regulation, the content of which is determined by the reflection of one's physical self, have been specifically highlighted. These include the following techniques: 1) control and regulation of tone of mimic muscles, 2) control and regulation of tempo of movements and speech, 3) special breathing exercises, 4) discharge; in this way emotional tension is given out. As a method of self-regulation, defusing is usually carried out in specific forms of warm-up (doing a certain exercise at full strength).

Self-humiliation, self-assertion and self-orders which are based on the use of words by an athlete and therefore belong to the so-called verbal influences were used as independent means of psychic regulation.

In addition, we used the following verbal means of mental regulation.

"Forming internal supports" is based on building the athlete's confidence in his/her abilities, confidence in his/her ability to make the right

decision and implement it consistently (Semin, 2007).

"Removing the prohibition of error". Athletes were advised to take deliberate risks before playing against a relatively weak opponent in order to suppress his will to resist (Reshetnikov, 2020).

"Deactualization of the opponent". It was pointed out that this athlete has an advantage over the opponent in tactical preparedness and in the ability not only to make the right decisions, but also to implement them consistently, which the opponent cannot do as effectively (Movshovich, 1984).

"Desensitization". Players were asked to recall instances in which his or her game plan collided with the opponent's more effective plan; to recall the adverse state in which this occurs (Gorbachev, 2009).

At the end of the formative stage, the indicators of interest were re-examined. The following results were obtained (Table 2)

Table 2. Data obtained at the end of the formative stage of the experiment

| Test takers     | The Millman methodology          |      |                         |      | The Martens methodology      |      | The Nemchin methodology   |      | TTA effectiveness (%) |      |
|-----------------|----------------------------------|------|-------------------------|------|------------------------------|------|---------------------------|------|-----------------------|------|
|                 | Competitive emotional resilience |      | Interference resistance |      | Personal competition anxiety |      | Neuropsychological stress |      |                       |      |
| 1               | -5                               | -3   | -3                      | -2   | 19                           | 15   | 58                        | 46   | 38                    | 43   |
| 2               | -3                               | -1   | 0                       | -1   | 24                           | 22   | 67                        | 54   | 42                    | 47   |
| 3               | -2                               | 0    | -1                      | -1   | 21                           | 17   | 62                        | 58   | 44                    | 45   |
| 4               | -4                               | -3   | -3                      | -1   | 18                           | 18   | 74                        | 62   | 32                    | 38   |
| 5               | 1                                | -1   | 1                       | 2    | 25                           | 19   | 56                        | 41   | 55                    | 52   |
| 6               | -3                               | -1   | 0                       | 1    | 20                           | 21   | 64                        | 59   | 60                    | 64   |
| 7               | -5                               | -3   | -4                      | -2   | 22                           | 14   | 72                        | 60   | 42                    | 44   |
| 8               | -1                               | 0    | -2                      | -3   | 26                           | 24   | 78                        | 67   | 38                    | 41   |
| 9               | 0                                | -1   | 1                       | 2    | 21                           | 16   | 53                        | 73   | 57                    | 55   |
| 10              | -3                               | -1   | -3                      | -1   | 18                           | 20   | 65                        | 51   | 39                    | 43   |
| Arithmetic mean | -2,5                             | -1,4 | -1,4                    | -0,6 | 21,4                         | 18,6 | 64,9                      | 57,1 | 44,7                  | 47,2 |

Analyzing the data presented in Table 2, we can confidently say that as a result of the application of the proposed tools in the studied team there were positive changes in the indicators affecting the success of competitive activity. At the same time the efficiency of performing technical and tactical actions during the matches has increased significantly in the studied players. The analysis of several games showed that the players have

no noticeable fluctuations in the performance of technical and tactical means, indicating the reliability of the implementation of game techniques.

## Discussions and Conclusion

The study is consistent with the scientific results obtained by other authors. The obtained results suggest that positive changes in the following indicators: competitive emotional stability; interference tolerance; personal competitive anxiety; neuropsychological tension, led to an increase in the success of technical and tactical actions by the players of the studied team.

The analysis of methodological and theoretical foundations of the reliability problem research made it possible to substantiate the concept of reliability in sport, a particular methodology for determining the quantitative and qualitative criteria of football players' activity reliability in training and competition conditions. This made it possible to identify factors contributing to the reliability of sports activities, to develop reliability models, as well as pedagogical ways and methods of football players' activity reliability management.

The research work corresponded to the hypothesis that the application in the educational and training process of football players means aimed at optimizing the psychological indicators of players will lead to improved reliability of the implementation of technical and tactical actions. To prove this assumption, the methods allowing to reveal psychological indicators of players, as well as the efficiency of their technical and tactical actions were selected.

The conducted fact-finding research has revealed that the following personal indices influence the effectiveness of technical and tactical actions: competitive emotional stability, interference tolerance, level of nervous and mental tension (Orekhovskaya et al., 2019; Davoudi, 2018). The analysis of reliability of playing techniques during competitions has revealed that in this indicator, almost all players have significant fluctuations from game to game, which indicates a low level of reliability. This was the reason for conducting a formative experiment, during which the developed psychological recommendations were applied.

As a result, positive results were obtained for all of the studied parameters. I would especially like to note that the analysis of several games after the forming stage showed the absence of significant fluctuations in the effectiveness of technical and tactical actions which indicates an increase in the reliability of playing techniques.

Consequently, the goal of the research set at the beginning of the work: the development of recommendations aimed at optimizing the psychological indicators of players, affecting the reliability of performance of game techniques, was achieved.

## Recommendations

The role of psychological preparation is highly valued by sports psychologists, and there is a sufficiently large number of studies and methodological developments concerning this section of the training process in various sports. There is a large arsenal of tools that contribute to the formation of an athlete's optimal psychological state before the competition. However, analysis of specialized literature and our own experience shows that most coaches ignore psychological preparation in the training process, considering it unnecessary section.

The main focus of this study was the introduction of psychological preparation in the educational and training process of football players. Before the application of such means were considered the following aspects: these means are mainly developed for highly skilled athletes, therefore it is necessary to consider some features of athletes of mass categories, in particular, the relative instability of their performances, and based on the identified features to formulate the basic principles and strategies for the use of psychological means.

The practical significance of this study lies in the fact that to improve the effectiveness of educational and training process and competitive activity of football players, based on the analysis of scientific and methodological literature, were formulated psychological recommendations that contribute to improving the reliability of competitive activity. The proposed recommendations included: conversations with players, suggestion, auto-training, self-infusion, self-confidence, and self-orders.

The results obtained in the course of this work allow us to assert that the proposed developments have a positive impact on the effectiveness of competitive activity of football players and can be recommended for implementation at various stages of sports training.

## Reference

- [1] Davoudi, S.M.M. (2018). Improving the Quality of Health Care Services in Health Centers and Hospitals, *Eurasian Journal of Analytical Chemistry*, 13(2):em05, DOI: 10.29333/ejac/82930.
- [2] Drozhalkin, VA. (2015). Features of psychological training in cyclic and acyclic sports. *Bulletin of scientific conferences*, 2-1(2), 47-49.
- [3] Golomazov, S. & Chirva, B. (2002). Theory and methodology of football. Game technique. Moscow: "SportAcademPress".
- [4] Gorbachev, S.S. (2009). Mental regulation of the state of readiness of a boxer for extreme sports activity: PhD Thesis. Moscow: Russian State University of Physical Culture, Sport and Tourism.
- [5] Kanbul, S., Zaitseva, N.A., Ikonnikov, A.I., Kalugina, O.A., Savina, T.N., & Evgrafova, O.G. (2021). Determining expert opinions of the faculty of education on the development of distance learning course. *International journal of emerging technologies in learning*, 15(23), 52-62, DOI 10.3991/ijet.v15i23.18783
- [6] Klesov, I.A. & Dashkevich, O.V. (1993). Personal factors of efficiency and reliability of competitive activity of young football players. *Theory and Practice of Physical Culture*, 2, 19-20.
- [7] Kruchinina, G.A. & Filonov, L.V. (2020). Assessment of Future Bachelors in the Field of "Physical Training" of the Formation of Universal Competences. *Vestnik of Minin University*, 8(4), 3-12.
- [8] Melcher, D.A. & Melnik, D.V. (2016). Attitude of parents of young football players to psychological training and activity of sports psychologist. *Resources of competitiveness of sportsmen: theory and practice of realization*, 1, 146-149.
- [9] Milman, V.E. (1983). Stress and personal factors of activity regulation. *Stress and anxiety in sport*. Moscow: FiS.
- [10] Movshovich, A.D. (1984). Psychology of fencing. *Fencing: Collected articles*, 1, 26-30.
- [11] Nevmyatov, N.A. (1998). Evaluation and improvement of interference resistance of technical and tactical actions of young football players. *Theory and practice of physical culture*, 7, 7-9.
- [12] Nifontov, M.Y. (2008). Significance of psychological qualities diagnostics in the system of complex selection in football. *Research and development in sport: Bulletin of postgraduate and doctoral studies; National State University of Physical Culture, Sport and Health named after P. Lesgaft*. PF Lesgaft, 1, 88-91.
- [13] Orekhovskaya, N.A., Chistyakov, A.A., Kryukova, N.I., Krokhina, J.A., Ospennikov, Y.V., & Makarova, E.V. (2019). Orthodoxy and Modernity their Contact Facets in Russian Society. *European Journal of Science and Theology*, 15(2), 67-77.
- [14] Polishkis, M.S., Klesov, I.A. & Dashkevich, O.V. (1998). Personal factors of efficiency and reliability in competitive activity of young footballers. *Physical training: education, education, training*, 2, 47-50.
- [15] Prokhorova, A.O. (2004). *The Psychology of States*. Moscow: PER SE.
- [16] Prosandeev, P.P. (2007). Pedagogical control of technical preparedness of young football players: PhD Thesis. Surgut: Surgut State Pedagogical University.
- [17] Reshetnikov, M.M. (2020). *Mental self-regulation*. Moscow: Publishing house "Yurait".
- [18] Rogov, E.I. (1999). *Handbook of Practical Psychologist*. Moscow: VLADOS Humanitarian Publishing Center.
- [19] Schultz, I.G. (1985). *Autogenic training*. Moscow: Medicine.
- [20] Semin, D.K. (2007). Mental states of a hockey player and means of their correction. *Physical culture, upbringing, education, training*, 2, 72-83.
- [21] Serebrovskaya, N.E., Suvorova, O.V. & Dunaeva, N.I. (2020). New view on trainer training in system of higher professional education. *Vestnik of Minin University*, 8(2), 13-21.
- [22] Sokolov, V.V. & Sedov, I.A. (2014). Psychological means of increasing the reliability of technical and tactical actions in football. *Physical Culture, Sports and Health*, 24, 171-174.
- [23] Solovyova, S.L. (2019). *Mental self-regulation. Self-help manual (beginning). Clinical and medical psychology: research, training, practice: electronic scientific journal*, 4(26). URL: <http://medpsy.ru/climp>

- [24] Stafeeva, A.V., Ivanova, S.S., Burkhanova, I.Y., Vorobyov, N.B., Reutova, O.V. & Komercheskaya, S.P. (2020). Forming self-development competences in engineering students during physical culture lessons. *International Journal of Applied Exercise Physiology*, 9(4), 111-116.
- [25] Tyulenkov, S.Y., Guba, V.P. & Prokhorov, A.V. (1997). Theoretical and methodological aspects of management of preparation of football players. Smolensk: no publisher.
- [26] Valco, M., Petro, M., Kardis, M., Shagieva, R.V., Kuznetsova, M.A., & Kryukova, N.I. (2019). Ecumenical Trinitarian Reflections and the 'De Regnon Paradigm': A Probe into Recovering the Social-Trinitarian Emphases of the Cappadocian Fathers. *Konstantinove Listy-Constantines Letters*, 12(1), 76-89. DOI: 10.17846/CL.2019.12.1.76-89
- [27] Vorobyov, N., Drandrov, G., Burkhanova, I., Ivanova, S., Stafeeva, A. & Kutepov, M. (2021). Organizational and methodological support of the process of formation of optimal pre-start state in martial artists. *International Review*, 1(1), 38-45.
- [28] Vorobyov, N.B. & Kolesnikova, D.B. (2014). Mental state of the coach as one of the factors determining pre-start emotional state of athletes. *Physical Culture, Sports and Health*, 24, 134-137.
- [29] Zaimentsev, E.A. (2015). Methods of psychoregulation and psychological preparation in football. *International student scientific bulletin*, 5(4), 547-548.
- [30] Zheleznyak, Y.D. & Petrov, P.K. (2002). Fundamentals of scientific and methodological activity in physical culture and sport. Moscow: Academia.