

## THE ROLE OF PSYCHOLOGICAL QUALITIES IN THE PROCESS OF THE FORMATION OF SPORTS SKILL OF YOUNG BASKETBALL PLAYERS

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### Abstract

**Purpose:** to determine the level of the development of indices of the influence of the important psychological qualities and the personality characteristics that defines the effectiveness of the competitive activity of young basketball players in the process of sports skill. **Material:** the study involved basketball players of the first category and beginners athletes of the 2nd and 3rd categories. **Research methods:** analysis of scientific and methodological literature, interview of leading trainers, pedagogical observations, pedagogical experiment, pedagogical testing, psychological testing, methods of mathematical statistics. **Results:** Significant psychological qualities and personality characteristics are established which contribute to increasing the level of competitive activity. **Conclusions:** the conducted research contributed to increasing the importance in the optimal level of development and manifestation of psychological qualities and personality traits in enhancing athletic skill. As a result of the research important psychological qualities and personality traits are established that contribute to the increase in the level of competitive activity.

**Key words:** psychological preparation, basketball players, competitive activity.

**Анатолій Ровний, Владлена Пасько. Роль психологічних якостей у процесі становлення спортивної майстерності юних баскетболістів** Мета – визначення показників рівня розвитку впливу важливих психологічних якостей та властивостей особистості, які визначають ефективність змагальної діяльності юних баскетболістів у процесі становлення спортивної майстерності. **Матеріал.** У дослідженні брали участь баскетболісти першого розряду й початкуючі спортсмени 2- та 3-го розрядів. **Методи дослідження** – аналіз науково-методичної літератури, опитування провідних тренерів, педагогічні спостереження, педагогічний експеримент, педагогічне тестування, психологічне тестування, методи математичної статистики. **Результати.** Установлено значимі психологічні якості та властивості особистості, які сприяють підвищенню показників рівня змагальної діяльності. **Висновки.** Проведене дослідження сприяло підвищенню значимості оптимального рівня розвитку й прояву психологічних якостей та властивостей особистості в підвищенні спортивної майстерності. У результаті досліджень установлено важливі психологічні якості й властивості особистості, які сприяють підвищенню рівня змагальної діяльності.

**Ключові слова:** психологічна підготовка, баскетболісти, змагальна діяльність.

**Анатолій Ровний, Владлена Пасько. Роль психологических качеств в процессе становления спортивного мастерства юных баскетболистов.** Цель – определение показателей уровня развития влияния важных психологических качеств и свойств личности, определяющих эффективность соревновательной деятельности юных баскетболистов в процессе становления спортивного мастерства. **Материал.** В исследовании приняли участие баскетболисты первого разряда и начинающие спортсмены 2- и 3-го разрядов. **Методы исследования** – анализ научно-методической литературы, опрос ведущих тренеров, педагогические наблюдения, педагогический эксперимент, педагогическое тестирование, психологическое тестирование, методы математической статистики. **Результаты.** Установлены значимые психологические качества и свойства личности, способствующие повышению показателей уровня соревновательной деятельности. **Выводы.** Проведенное исследование способствовало повышению значимости оптимального уровня развития и проявления психологических качеств и свойств личности в повышении спортивного мастерства. В результате исследований установлены важные психологические качества и свойства личности, способствующие повышению уровня соревновательной деятельности.

**Ключевые слова:** психологическая подготовка, баскетболисты, соревновательная деятельность.

At each stage of improving physical, technical, tactical and especially psychological preparedness, the patterns of the preceding and subsequent stages of the training process should be taken into account [7; 9; 11; 15].

Considering the general psychological preparation as a pedagogical process, the leading psychologists of sports indicate that due to the purposeful formation of the psychic properties of the personality the process of development of special motor skills is accelerated and the system of competitive readiness is improved [1; 2].

At the same time, the ground for structuring the psychological preparation of young athletes is based on the use of psychological regularities in improving sports skill that will ensure the optimization of the training of athletes and determine the means and methods.

**The purpose** of the study is to determine the level of development the importance of psychological qualities and personality traits that determine the effectiveness of the competitive activity of young basketball players in the process of improving sports athletes' skill.

**Research objectives:**

1. To identify the psychological qualities and personality traits of young athletes, which contribute to the development of sports skills in basketball.
2. To establish the correlation between the revealed psychological qualities and personality traits of athletes with the indicators of the effectiveness of the competitive activity of young basketball players.

**Materials and Methods of Research.** To solve the tasks set such research methods were used: analysis of scientific and methodological literature, interview of leading trainers, pedagogical observations, pedagogical experiment, pedagogical testing, psychological testing, and methods of mathematical statistics. The study was conducted in the preparatory period for the basketball players of the first category and beginners athletes of the 2nd and 3rd categories.

**Results of the Study and their Discussion.** To establish the psychological qualities and personality properties that influence the development of the sporting skills of young basketball players, the survey of leading trainers was conducted, as well as the analysis of scientific literature on the psychology of sports and sports games [3; 5; 12; 16; 17]. This made it possible to establish the parameters of psychological qualities that provide mobilization and psycho-functional stability in the experimental conditions of competitive activity. It is especially important to establish psychological qualities and personality traits which are the most stable and therefore most significant for the formation of the stability of competitive activities.

In the present study, typological features of the nervous system, features of gnostic processes of sport thinking, perception, short-term memory, attention, self-control, volitional qualities, rapid evaluation of the emerged situations, and the degree of self-esteem are established.

In order to study the influence of the established psychological qualities and personality properties, a correlation analysis was made, which makes it possible to establish the level of correlation with the indicators of competitive activity.

Beginners basketball players have 10 psychological indicators that have reliable correlation with the indicators of competitive activity ( $p < 0,02$ ): resolution, time of operational and tactical thinking, generalization and expressiveness of willed qualities of perseverance, self-control, endurance, mobility of nervous processes, perception of temporary intervals (15 and 30 seconds). The presented indicators have one reliable connection with the indicators of pedagogical testing. Only the indicator of the accuracy of perception of the time interval of 15 seconds has two reliable links: the number of hits into the basket during the game ( $r=0,65$ ) and the result of penalty throws ( $r=0,56$ ).

The highest correlation in the beginners basketball players is established between the indices of hits of the ball into the basket during the game and volitional perseverance ( $r=0,72$ ). The time indicator of operational thinking correlates with the accuracy of penalty throws ( $r=0,68$ ). The same level of correlation has a time indicator of tactical thinking and an indicator of accuracy of throwing the ball into the basket during the game ( $r=0,68$ ).

Thus, based on the materials of the research, it is established that the beginners basketball players have 10 established psychological qualities and personality traits that are the basis for the development of sports skills of the beginners basketball players [4; 6; 10; 14].

In the group of the basketball players of the second sports category, a reliable relationship of 22 psychological indicators with the results of pedagogical testing ( $p < 0,05$ ) was established: confidence in everyday life and resolution; time tactical thinking; time of visual-motor reaction; the accuracy of the response of the choice of two and three factors; braking efficiency; balance of nervous processes; accuracy of movement; concentration of attention; volume and errors of information processing; memory efficiency; self-confidence; self-guidance; self-perception; internal conflict; perception of time to 10 from 18 presented factors correlate with the test score «run 8x28». The indicator «protective moves» does not have a reliable connection with the psychological qualities and personality traits. Four indicators of psychological qualities are established, which have 2 reliable links with the indicators of such pedagogical tests: «penalty throws» and «running 8x28». This is an indicator of memorization ( $r=0,69$  and  $r=0,77$ ); stability of attention ( $r=0,68$  and  $r=0,61$ ); visual-motor reaction ( $r=0,79$  and  $r=0,58$ ); time tactical thinking ( $r=0,59$  and  $r=0,71$ ).

The highest correlation was established between self-confidence and the result of the «run 8x28» test ( $r=0,78$ ). Of particular interest is the fact that all indicators of the properties of attention have reliable links with pedagogical tests: the effectiveness of attention with the indicator of the ball hitting the basket during the game ( $r=0,68$ ); accuracy and error of attention with the indicator «8x28 run» ( $r=0,65$ ) and ( $r=0,67$ ). In addition out of all 12 indicators of specialized perception of time 10 deal with accuracy of throwing into the basket ( $r=0,65$ ). This is an indicator of specialized perception of the time 10 sec. with a throwing accuracy into the basket ( $r=0,66$ ). The presented research materials testify that with increasing level of preparedness (2nd category) for the psychological factors play a more significant role in raising the level of special preparedness of athletes [7; 8; 13].

With the increase in sportsmanship (1st category), the indicators of psychological qualities and properties play a more significant role in achieving the result. A more significant level of correlation was established in the range from  $r=0,55$  to  $r=0,87$ . It is typical that the indicator of expressiveness of strong-willed qualities, initiative and independence has significant differences with the indicators of «penalty throws» ( $r=0,67$ ); «running 8x28» ( $r=-0,72$ ); «defense movements» ( $r=0,78$ ).

The highest correlation dependence is established between the type of perception and the test «defense movements» ( $r=0,84$ ).

The results of the research showed that, except of operational thinking, all indicators have reliable links with indicators of athletic preparedness. So, for example, we consider confidence from 3 positions: the first – the confidence in extreme competitive conditions correlates with the accuracy of the ball throwing into the ring ( $r=0,72$ ); the second – the confidence in everyday life correlates with the test «running 8x28» ( $r=0,69$ ); the third – the resolution correlates with the «penalty throws» test ( $r=0,68$ ). On the basis of the interrelation between the psychological qualities and traits of the athletes' personality, the foundations of the special sports activity of basketball players are formed.

### Conclusions:

As a result of the research, significant psychological qualities and personality traits are established that contribute to the increase in the level of competitive activity.

Gradual increase in the number of psychological qualities and personality traits indicates:

- increase in the importance of psychological training of basketball players at the initial stage of the development of sportsmanship;
- increase in the importance of the optimal level of development and manifestation of the psychological qualities and properties of the individual in improving skills.

### Sources and Literature

1. Асмолов А. Г. Психология личности. Москва, 1990. 228 с.
2. Баринов В. В. Влияние индивидуальных особенностей личности баскетболиста на успешность соревновательной деятельности: автореф. дис. ... канд. пед. наук/РГАФК. Москва, 2001. 23 с.
3. Коробейников Г. В., Дудник О.К., Коняева Л. Д. Діагностика психофізіологічних станів спортсменів: метод. посіб. / Г. В. Коробейников, О.К. Дудник, Л.Д. Коняева. К., 2008. 64 с.
4. Ермаков С. С. Информационные аспекты инженерной психологии в приложении к решению задач взаимодействия спортсмена с техническими устройствами и инвентарем. Педагогіка, психологія та медико.-біологічні проблеми фізичного виховання і спорту. 2004. № 19. С. 100–102.
5. Ильин Е. П. Психология спорта. Санкт-Петербург: Питер, 2008. 352 с.
6. Коробейников Г. В., Сакаль Л. Д., Россоха Г. В. Психофізіологічні особливості формування функціональних станів борців високої кваліфікації. Педагогіка, психологія та медико-біологічні проблеми фізичного виховання і спорту. 2004. № 1. С. 281–287.
7. Пасько В. В. Інноваційні технології удосконалення фізичної та технічної підготовленості регбістів на етапі спеціалізованої базової підготовки: автореф. дис. ... канд. наук з фіз. виховання та спорту: 24.00.01 «Олімпійський і професійний спорт». Дніпропетровськ, 2016. 22 с.
8. Пасько В. В. Применение компьютерных технологий в процессе развития тактического мышления у юных спортсменов в игровых видах спорта. *Проблемы и перспективы развития спортивных игр и единоборств в высших учебных заведениях*: сб. статей IV междунар. науч. конф., 5 февраля 2008 г. Харьков; Белгород; Красноярск, 2008. С. 150–152.
9. Ровний А. С., Пасько В. В. Моделі фізичної підготовленості як основа управління тренувальним процесом регбістів на етапі спеціалізованої базової підготовки. *Науковий часопис Національного педагогічного університету імені М. П. Драгоманова*. Серія № 15: Науково-педагогічні проблеми фізичної культури/фізична культура і спорт: зб. наук. праць. Київ: Вид-во НПУ ім. М. П. Драгоманова, 2017. Вип. 2 (83)17. С. 92–96.
10. Ровний А. С., Пасько В. В. Совершенствование тренировочного процесса регбистов средствами гипоксической тренировки. *Спортивные игры № 4*: науч. журн. Харьков: ХГАФК, 2017. С. 51–55.
11. Ровний А. С. Формування міжсенсорних взаємовідношень як система сенсорного контролю точних рухів спортсменів. *Педагогіка, психологія та медико-біологічні проблеми фізичного виховання і спорту*. 2000. № 12. С. 29–31.
12. Шбанков О. В., Петров Д.С., Головина В. А. Система контроля психофизического состояния человека как инструмент управления процессом адаптации в спорте и учебном процессе. *Теория и практика физической культуры*. Москва, 2002. № 2. С. 20–23.
13. Borg G. Psychological contribution of the perception of effort. *Med. Sci. Sport and Exerc.* 1989. V.14. 387–389 p.
14. Ocudo H., Hubbard M. Dynamics of the basketball shot with application to the free throw. *Journal of Sports Sci.* 2006. Vol. 24. Issue. 1303–1314.

15. Rovniy Anatoly, Pasko Vladlena, Grebeniuk Oleg. Stepanovitch. Adaptation of reformation of physiological functions of the organism of the 400 m hurdlers during hypoxic training. *Journal of Physical Education and Sport (JPES)* 16 (4). 2016. P. 1340–1344.
16. Rovniy Anatoly, Pasko Vladlena, Martyrosyan Artur. Adaptation of the cardiorespiratory system to hypoxic actions of the rugby players depending on the playing position. *Journal of Physical Education and Sport*, 17 (2). 2017. P. 804–809.
17. Rovniy Anatoly, Pasko Vladlena, Stepanenko Dmytro, Grebeniuk Oleg Hypoxic capacity as the basis for sport efficiency achievements in the men's 400-meter hurdling. *Journal of Physical Education and Sport (JPES)*, 17 (1). 2017. P. 300–305.

#### References

1. Asmolov, A. H. (1990). *Psikhologhiia lichnosti* [Psychology of personality]. M., 228.
2. Barinov, V. V. (2001). *Vliianie individualnykh osobennostei lichnosti basketbolista na uspehnost sorevnovatelnoi deiatelnosti: avtoref. dis. kand. ped. nauk* [Influence of basketball player personality on the success of competitive activities]. RHAFK, M., 23.
3. Korobeinikov, H. V., Dudnyk, O.K. & Koniaieva, L. D. (2008). *Diahnostyka psikhofiziologichnykh staniv sportsmeniv* [Diagnosis of psychophysiological conditions of athletes]. K., 64.
4. Ermakov, S. S. (2004). *Informatsionnye aspekty inzhenernoi psikhologii v prilozhenii k resheniiu zadach vzaimodeistviia sportsmena s tekhnicheskimi ustroistvami i inventarem* [Information aspects of engineering psychology in the application to the decision of interaction problems of an athlete with technical devices and inventory]. *Pedahohika, psikhologhiia ta med.-biol. problemy fiz. vykhov. i sportu*, no. 19, 100–102.
5. Ilin, E. P. (2008). *Psikhologhiia sporta* [Psychology of sports]. Spb: Piter, 352.
6. Korobeinikov, H. V., Sakal, L. D. & Rossokha, H. V. (2004). *Psikhofiziologichni osoblyvosti formuvannia funktsionalnykh staniv bortsiv vysokoi kvalifikatsii* [Peculiarities of functional states of nervous system of higher qualification grapplers]. *Pedahohika, psikhologhiia ta med.-biol. problemy fiz. vykhov. i sportu*, no. 1, 281–287.
7. Pasko, V. V. (2016). *Innovatsiini tekhnologii udoskonalennia fizychnoi ta tekhnichnoi pidhotovlenosti rehbistiv na etapi spetsializovanoi bazovoi pidhotovky: avtoref. dys. kand. nauk z fiz. vykhovannia ta sportu: 24.00.01 «Olimpiiskyi i profesiynyi sport» [Olimpiiskyi i profesiynyi sport]* [Innovative technologies improving physical and technical preparedness specialized rugby players during basic training]. Dnipropetrovsk, 22.
8. Pasko, V. V. (2008). *Primenenie kompiuternykh tekhnolohiyi v protsesse razvitiia takticheskoho myshleniia u yunykh sportsmenov v ihrovykh vidakh sporta* [Application of computer technologies in the development of tactical thinking among young athletes in the game sports]. *Problemy i perspektivy razvitiia sportivnykh ihr i edinoborstv v vysshikh uchebnykh zavedenyakh: sb. statei IV mezhdunarodnoi nauchnoi konferentsyy, 5 fevralia 2008 hoda. Kharkov-Belhorod-Krasnoarsk*, 150–152.
9. Rovnyi, A. S. & Pasko, V. V. (2017). *Modeli fizychnoi pidhotovlenosti yak osnova upravlinnia trenuvalnym protsesom rehbistiv na etapi spetsializovanoi bazovoi pidhotovky* [Models of physical fitness as a basis for management training process during rugby specialized basic training]. *Naukovyi chasopys Natsionalnoho pedahohichnoho universytetu imeni M.P.Drahomanova. Seriya № 15. "Naukovo-pedahohichni problemy fizychnoi kultury / fizychna kultura i sport"* zb. naukovykh prats. K.: Vyd-vo NPU imeni M.P. Drahomanova, vypusk 2 (83)17, 92–96.
10. Rovnii, A. S. & Pasko, V. V. (2017). *Sovershenstvovanie trenirovochnoho protsesa rehbistiv sredstvami hipoksicheskoi trenirovki* [Improving the training process of rugby players with the help of hypoxic training]. *Sportivnye ihry*, no. 4, Kharkov : KhHAFK, 51–55.
11. Rovnyi, A. S. (2000). *Formuvannia mizhsensornykh vzaiemovidnoshen yak systema sensornoho kontroliu tochnykh rukhiv spotsmeniv* [Formation of inter-sensory interactions as a sensory control system of accurate spontaneous movements]. *Pedahohika, psikhologhiia ta med.-biol. problemy fiz. vykhov. i sportu*, no. 12, 29–31.
12. Shbankov, O. V., Petrov, D. S. & Holovyna, V. A. (2002). *Systema kontroliia psikhofizycheskoho sostoiannya cheloveka kak ynstrument upravleniia protsessom adaptatsyy v sporte y uchebnom protsesse* [The monitoring system of a person's psychophysical state as a tool for managing the process of adaptation in sports and educational process]. *Teoriia i praktika fizicheskoi kultury. M.*, no. 2, 20–23.
13. Borg, G. (1989). *Psychological contribution of the perception of effort* / G. Borg. *Med. Sci. Sport and Exerc.*, v. 14, 387–389.
14. Ocudo, H. & Hubbard, M. (2006). *Dynamics of the basketball shot with application to the free throw*. *Journal of Sports Scienc.*, volume 24, issue, 1303–1314.
15. Rovnii, A. S., Pasko, V. V. & Grebeniuk, O. V. (2016). *Adaptation of reformation of physiological functions of the organism of the 400 m hurdlers during hypoxic training*. *Journal of Physical Education and Sport (JPES)*, 16 (4), 1340–1344.
16. Rovnii, A., Pasko, V. V. Martyrosyan, A. (2017). *Adaptation of the cardiorespiratory system to hypoxic actions of the rugby players depending on the playing position*. *Journal of Physical Education and Sport*, 17 (2), 804–809.
17. Rovnii, A., Pasko, V. V., Stepanenko, D. & Grebeniuk, O. (2017). *Hypoxic capacity as the basis for sport efficiency achievements in the men's 400-meter hurdling*. *Journal of Physical Education and Sport (JPES)*, 17

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