

ORGANIZATION OF INDIVIDUAL PROJECT ACTIVITIES WITH SPORTS-GIFTED CHILDREN

ORGANIZAÇÃO DE PROJETOS DE ATIVIDADES INDIVIDUAIS COM CRIANÇAS SOBREDOTADAS PARA O ESPORTE

ORGANIZACIÓN DE ACTIVIDADES DE PROYECTOS INDIVIDUALES CON NIÑOS DOTADOS DEPORTIVOS

Rina Samatovna KAMAHINA¹

Ehlmira Shamilevna SHAMSUVALEEVA²

Nailya Chanifovna DAVLETOVA³

Irina Rafisovna MURATOVA⁴

ABSTRACT: The article discusses the experience of individual project activity organization with gifted children in a summer sports camp, where 64 young athletes of the Republic of Tatarstan participated in pedagogical testing and experiment and were involved in table tennis, wrestling, athletics and showed high performance. The implementation of the individual project for their body self-control, proposed by the authors within the framework of the “Champion's Way” educational program, implies the creative, research activities of a young athlete, coordinated with the trainer and parents, and contributes to the development of the necessary competencies. The result of individual project activity is a socially important product obtaining - an individual work project, “Self-monitoring of physical condition”, in which an athlete describes and analyzes his body in detail, observing his health. The main goal of the project as a young athlete is to learn how to examine himself to improve his athletic performance without compromising his own health. The paper presents specific proposals for project activity organization through a system of laboratory exercises and specialized trainings relevant in the field of physical culture and sports activities, aimed at skill development necessary for health-saving behavior of young athletes and coaches.

KEYWORDS: Sports. Gifted children. Project activities. Health-saving technologies.

RESUMO: O artigo discute a experiência de organização de um projeto de atividades individuais com crianças superdotadas em um acampamento esportivo de verão, onde 64 jovens atletas da República de Tartaristão participaram de testes e experiências pedagógicas

¹ Kazan Federal University (KPFU), Kazan – Russia. Associate Professor of Pharmacy Department, Institute of Fundamental Medicine and Biology. Candidate of Pedagogics. ORCID: <https://orcid.org/0000-0002-9070-8357>. E-mail: rinal50973@mail.ru

² Volga Region State Academy of Physical Culture, Sport and Tourism (SPORTACADEM), Kazan – Russia. Associate Professor of the Department of Medical and Biological Disciplines. Candidate of Biology. ORCID: <https://orcid.org/0000-0002-6633-3356>. E-mail: el.w.w@mail.ru

³ Volga Region State Academy of Physical Culture, Sport and Tourism (SPORTACADEM), Kazan – Russia. Associate Professor of the Department of Medical and Biological Disciplines. Candidate of Medical Sciences. ORCID: <https://orcid.org/0000-0002-2014-1746>. E-mail: davletova0681@mail.ru

⁴ Kazan Federal University (KPFU), Kazan – Russia. Undergraduate of the Institute of Pedagogy and Psychology. ORCID: <https://orcid.org/0000-0003-2571-0378>. E-mail: irena.murena369@gmail.com

e estiveram envolvidas em ténis de mesa, luta livre, atletismo e mostraram alto desempenho. A implementação do projeto individual de autocontrole corporal, proposto pelos autores no âmbito do programa educacional "Champion's Way", implica nas atividades criativas de pesquisa de um jovem atleta, coordenadas com o treinador e os pais, e contribui para o desenvolvimento das competências necessárias. O resultado da atividade individual do projeto é a obtenção de um produto socialmente importante - um trabalho individual de projeto "Autocontrole da condição física", no qual um atleta descreve e analisa seu corpo em detalhes, observando sua saúde. O principal objetivo do projeto para o jovem atleta é aprender a se examinar para melhorar seu desempenho atlético sem comprometer sua própria saúde. O documento apresenta propostas específicas para a organização das atividades do projeto por meio de um sistema de exercícios de laboratório e treinamentos especializados, relevantes no campo da cultura física e das atividades esportivas, destinados ao desenvolvimento de habilidades necessárias para o comportamento de jovens atletas e treinadores que resguardam sua saúde.

PALAVRAS-CHAVE: Esportes. Crianças sobredotadas. Atividades de projeto. Tecnologias para a preservação da saúde.

RESUMEN: El artículo analiza la experiencia de la organización de actividades de proyectos individuales con niños superdotados en un campamento deportivo de verano, donde 64 jóvenes atletas de la República de Tartaristán participaron en pruebas y experimentos pedagógicos y participaron en tenis de mesa, lucha, atletismo y mostraron un alto rendimiento. La implementación del proyecto individual de autocontrol corporal propuesto por los autores en el marco del programa educativo "Champion's Way" implica las actividades creativas e investigadoras de un joven deportista, coordinado con el entrenador y los padres, y contribuye al desarrollo de las competencias necesarias. El resultado de la actividad del proyecto individual es la obtención de un producto de importancia social: un trabajo de proyecto individual "Autocontrol de la condición física", en el que un atleta describe y analiza su cuerpo en detalle, observando su salud. El objetivo principal del proyecto como joven deportista es aprender a examinarse a sí mismo para mejorar su rendimiento deportivo sin comprometer su propia salud. El documento presenta propuestas específicas para la organización de actividades de proyectos a través de un sistema de ejercicios de laboratorio y entrenamientos especializados relevantes en el campo de la cultura física y las actividades deportivas y dirigidos al desarrollo de habilidades necesarias para el comportamiento saludable de los jóvenes atletas y entrenadores.

PALABRAS CLAVE Deportes. Niños superdotados. Actividades de proyectos. Tecnologías para la salud.

Introduction

The urgency of the problem is related to the fact that, on the one hand, sports gifted children require a result in the form of victories during sports competitions, and on the other hand, preservation of their health and, thus, a long sports career. This simultaneous combination of two goals is considered possible during health-saving technology introduction

in all areas of life. Preserving the population health, forming the basics of a healthy lifestyle, introducing adults and children to sports are the tasks that are controlled at the highest level (OPOKIN, 2019).

Sports victories in various competitions are needed by an athlete and by society. High athletic performance achievement and physical quality development at the same time as the introduction to healthy lifestyle values is one of the priority tasks that the trainer should set for himself and the students during the initial training stage.

Based on the foregoing, the system of support for sports gifted and talented children should be focused on their competence formation and development, allowing self-control of a young athlete physical condition during individual project activities (BELOUSOVA, 2019; VETROV, 2019; DAVLETOVA, 2019; OSIPOVA, 2017).

The implementation of the individual project proposed by the authors for self-control of their body within the framework of the “Champion's Way” educational program implies the creative, research activities of a young athlete, coordinated with the trainer and parents, contributes to the development of the necessary competencies. The result of an individual project activity is the receipt of a socially important product, which an athlete describes in detail, observing his health. The main goal of the project is to teach a young athlete the ways self-examination to improve his athletic performance without compromising his own health.

Methods

The “Champion's Way” educational program was developed by the FSBEI HE "Volga State Academy of Physical Culture, Sports and Tourism" in the framework of the Temporary Research Team “Gold Standard for Child Development 2.0” in the nomination “Educational development modules for gifted areas and competence groups. Direction "Sport" with the financial support of ANO "Kazan Open University of Talents 2.0".

The topic study was organized during the summer specialized session of the University of Talents “Way of the Champion” (July 2019). 64 young athletes of the Republic of Tatarstan with high performance were involved in table tennis, wrestling, athletics and took part in the pedagogical testing and experiment.

Results and discussion

One of the goals of the developed educational program “The Way of the Champion” is to improve the skills of young athletes to achieve the maximum possible level of technical, tactical, physical, functional, psychological and theoretical training through their body functional state control in the form of systemic self-control, followed by writing and public defense of their individual sportsmanship development trajectory in the form of the project “self-monitoring of physical condition” (DAVLETOVA, 2019).

They envisaged that young athletes study the “Pump the Brain” module to deepen theoretical knowledge, before starting an individual project. This module includes interactive classes aimed at young athlete awareness raising in the issues of health-saving behavior, in the form of lectures, laboratory work and training. The authors developed methodological foundations and tested the organization of each participant work in the following laboratories during the summer specialized session.

“Laboratory for an athlete functional evaluation”:

- assessment of the body functional indicators and leading systems for sports activities provision;
- development of individual physical training programs.

“Know Yourself”:

- the analysis of psychophysiological techniques that record individual autonomic and emotional reactions of a young athlete;
- the formation of skills to work with basic equipment and basic techniques used to assess the functional state of an athlete's body.

“The laboratory of bio-laws” (SALAJ, 2011):

- the analysis of modification variability statistical laws;
- characteristics of an athlete's body quantitative indicators;
- determination of indicator variability limit;
- the development of variation curves and the formulation of conclusions about the reaction rate characteristics of individual traits among athletes.

“Sports recovery laboratory”:

- assessment of various methods of recovery after a training load;
- the role of sleep in the recovery process after physical exercise;
- mastering the basic techniques of massage and self-massage;
- analysis of food products used for recovery;
- mastering the basic techniques of active recovery.

"#NoInjury!":

- assessment of risk factors for injuries;
- the analysis of the main methods of injury prevention during the competitive and training processes;
- mastering the algorithm of first aid in emergency conditions and injuries.

Besides, the author's trainings were developed and organized, based on the Technology of critical thinking development and an active approach .(Shamsuvaleeva, 2018).

Champion Self-Control:

- The basic principles of the functional state self-monitoring before, during and after training;
- The development of self-control skills;
- The concept of overwork and the development of skills for its early detection.

"Champion's Nutrition":

- The theoretical foundations of a balanced diet;
- The rules of making the menu for the day;
- The concept of healthy snacks;
- Basic principles of athlete nutrition.

Champion's Day:

- The concept of the right habits and theoretical foundations of the daily schedule drawing up;
- Rules for drawing up a daily schedule for weekdays, weekends and vacations;
- Determination of your chronotype;
- Daily schedule depending on the chronotype;

- Mastering the technique of habit tracker development.

“Brain up, champion!” (EYLER, 2014; YAKOVENKO; KAMAHINA; MAVLYUDOVA, 2016):

- The concept of fitness for the brain and its significance for a young athlete;
- Basic techniques and exercises;
- Gadgets, AND applications for cognitive ability effective training.

"#ProWeight":

- Weight control;
- Evaluation of various opinions on weight reduction ways;
- Mastering the basic rules of safe weight loss and weight gain in various sports.

Individual project work involves two scientific consultants and begins with an input diagnosis of the functional state of a young athlete using specialized equipment at the Functional Assessment Laboratory. Then, throughout the entire shift, the participant monitors the manifestation of the training process effects and learns to identify the first signs of fatigue. He observes himself, takes measurements, evaluates the quality of sleep, well-being, the level of physical performance during morning exercises, the master classes from sports stars, and training in the chosen sport and competitions. Assessing his condition, a young athlete, together with the trainer and scientific consultants, takes into account the data obtained in the other laboratories listed above on the basics of an athlete physical condition monitoring, and compares himself with other participants during the training. Having received the recommendations of scientists, he develops and publicly defends his individual trajectory of sportsmanship development.

The main indicators of the learning goals and expected result achievement is the successful public defense of the individual project work “Self-monitoring of physical condition” by young athletes as the result of all types of educational activities comprehension during the “Champion's Way” educational program development (DAVLETOVA, 2019).

The key role in project activity organization of young athletes is given to the training "Champion Self-Control", the substantive purpose of which is to structure the system of control and self-control concept during training and competitive activities, and the active

purpose is the development of the ability to exercise self-control of subjective and objective indicators for the successful preparation of an athlete to competitions.

Among the expected training results, one should note especially:

- mastering the methods of keeping a self-control diary during training and competitive activities to identify the first signs of fatigue and overwork;
- mastering special skills for self-monitoring of subjective and objective indicators of an athlete's body in the process of preparation and participation in competitions.

Let's consider some aspects of the project on the example of young wrestlers. Among the subjective indicators of self-control, they are encouraged to note their general state of health, both mental and physical performance, sleep and appetite in their workbook, and then try to give a general assessment of the results using the POPS formula (TURSUNBAEV, 2018).

To assess the objective indicators of self-control, the training participants are invited to learn to measure the girth of the biceps, chest and thigh, pulse, pressure, height, and body weight under the coach supervision. Some parameters are necessary to calculate the adaptive potential, and body mass index. To assess the functional state of the respiratory system, the hypoxic tests of Stange and Genchi are used.

Measuring of heart rate is an important component of exercise tolerance control for athletes. Training participants get acquainted with the orthostatic test, which informs an athlete about the functional state, the degree of fatigue, and discuss the calculation of fluid loss restoration after the training. Then, using the POPS formula, a general conclusion is drawn up based on measurement results.

The next stage of work includes the development of a habit tracker for systemic self-monitoring and self-control indicator record:

- at each training session (dynamics of body weight changes);
- once a day (subjective indicators of self-control, orthostatic test);
- once a month (adaptive potential, Genche test, Stange test);
- once every six months (circumferential measurements);

The acquired skills of self-observation result record and a number of indicators measurement in a workbook are necessary for further self-assessment, and then the development and implementation of an individual program of personal development, taking

into account the bulk of factors influencing an athlete. There are special pages in the workbook, gradual filling of which prepares a young athlete for public defense.

The defense of the project “Self-monitoring of physical condition” suggests that a participant will be able to compare the body functional state study results with the tabular values or the average result in the group, comment on them using the POPS formula, determine their pros and cons, suggest the possibility of these data use to correct the training process, justify the conditions for overwork, overtraining and injury prevention, and to formulate a general conclusion on the project.

Such activity allows you to create a design type of thinking based on the ability to assess the prospects of your development, correctly use the body resources, plan actions, carry out a plan, which will undoubtedly work both for the performance in sports and for your health maintenance.

During the development of the “Champion's Way” educational program, young athletes must maintain a specially designed workbook as didactic material. Accomplishment of the Workbook tasks makes the part of trainings and at the same time individual project work “Self-monitoring of physical condition”, which is the result of the “Champion's Way” educational program development.

Expected results of the “Champion's Way” program educational interactive module mastering:

- adoption of conceptual models of athlete's health-saving activities to achieve high athletic performance;
- adoption of new view ideas on the development of health-saving behavior among athletes as the winner’s thinking;
- the development of self-control methods for an athlete's body, including the emotional sphere;
- mastering special skills for health-saving behavior implementation through memory, attention, and flexibility of thinking improvement to solve non-standard tasks of sports practice.

Summary

The implementation of the individual project work “Self-monitoring of physical condition” contributes to the necessary competence development among young athletes for

self-monitoring during training and competitive activities, the identification and further analysis of subjective and objective health indicators obtained as the result of training mastering, as well as keeping a self-control diary in sports.

Obtaining the simplest self-control skills, the ability to observe oneself, analyze the current situation, identify the first signs of fatigue and overwork allows young athletes to correct a training schedule to master high training loads through the health-saving behavior development.

Conclusions

Project activities are the part of the Federal State Educational Standard requirements (KARPOVA, 2012; SARGE, 2018; TARASOVA, 2018; SHAPOVALOV, 2019). Mastering the competencies that determine success in training and competitive activities is possible during implementation of various projects, including pedagogical test result record, health monitoring and a young athlete body functional state evaluation. To organize individual project activities with sports gifted students, it is necessary to create a system of laboratory studies and specialized trainings that are relevant in the field of physical culture and sports activities and create conditions for studying a young athlete's own body.

ACKNOWLEDGEMENTS: The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

REFERENCES

- BELOUSOVA, D. N. Work with gifted children. Their involvement in research and design activities. *In: BELOUSOVA, D. N. Education and science in modern realities*. 2019. p. 45-46.
- DAVLETOVA, N. K. **Navigator for the workers in the field of physical education and sports on the development of talents in the Republic of Tatarstan: the collection of trainings**. 2019. 208 p.
- EYLER, L. T. Conceptual and data-based investigation of genetic influences and brain asymmetry: a twin study of multiple structural phenotypes. **Journal of Cognitive Neuroscience**, v. 26, n. 5, p. 1100-1117, 2014.
- KARPOVA, S. I. Design and research activity as the means of gifted student development. **Bulletin of SUU**, n. 1, p. 143-147, 2012.

OPOKIN, D. S. Health-saving technologies in the education system. **Human World**, p. 71-74, 2019.

OSIPOVA, S. N. Project activity in work with gifted children. **Interactive Science**, n. 12, p. 103-105, 2017.

SALAJ, S. Specificity of jumping, sprinting, and quick change of direction motor abilities. **J. Strength Cond. Res.**, v. 25, n. 5. p. 1249-1255, 2011.

SARGE, A. V. Work with gifted children in the conditions of modern technological education in Russia. **Modern Technological Education**, p. 52-58, 2018.

SHAMSUVALEEVA, E. S. The design of classes using the Technology of critical thinking development on the example of the discipline "Fundamentals of anti-doping support". **Science and sport: modern trends**, v. 3, n. 20, p. 114-120, 2018.

SHAPOVALOV, A. A. Teacher training for the organization and conduct of educational, research and design activities of students. *World of Science, Culture, Education*, v. 6, n. 79, p. 208-212, 2019.

TARASOVA, E. V. Olympic principles of training during individual trajectory support organization concerning the highest achievements of gifted children. **Science and sport: modern trends**, v. 1, n. 18, p. 126-131, 2018.

TURSUNBAEV, S. U. Project activities of teachers during the development of giftedness among children and adolescents. **Prospects of Science**, n. 8, p. 99-102, 2018.

VETROV, Y. P. Project activity as the factor in the development of giftedness among children and adolescents. **Bulletin of the Armavir State Pedagogical University**, n. 1, p. 17-25, 2019.

YAKOVENKO, T.; KAMAHINA, R.; MAVLYUDOVA, L. The educational process organization on the basis of the cerebral hemispheres individual profile functional asymmetry. **Research Journal of Pharmaceutical, Biological and Chemical Sciences**, v. 7, n. 5, p. 1714-1720, 2016.

How to reference this article

KAMAHINA, R. S.; SHAMSUVALEEVA, E. S.; DAVLETOVA, N. C.; MURATOVA, I. R. Organization of individual project activities with sports-gifted children. **Revista on line de Política e Gestão Educacional**, Araraquara, v. 25, n. esp. 1, p. 528-537, mar. 2021. e-ISSN:1519-9029. DOI: <https://doi.org/10.22633/rpge.v25iesp.1.14993>

Submitted: 06/11/2020

Required revisions: 18/01/2021

Approved: 23/02/2021

Published: 01/03/2021