A Scientific German Journal

PROXIMUS

JOURNAL OF SPORTS SCIENCE AND PHYSICAL EDUCATION

Volume 01, Issue 03, March, 2024

Languages: English, German, Spanish, and Russian

ISSN (E): 2942-9943

ResearchBib: 9.775

IFSIJ JIF: 7.010

Publication Frequency:
Monthly (12 Issues Per Year)

proximusjournal.com

Berlin 10785,
Germany

PROXIMUS JOURNALS PUBLISHING

Proximus Journal of Sports Science and Physical Education

Vol. 1 No. 3 (2024)

Published: 2024-03-05

Articles

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 3, March, 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

DEVELOPMENT AND DISTRIBUTION OF NATIONAL SPORTS IN UZBEKISTAN

Ilal Najimov
Associate Professor of the Interfaculty Department of Physical Culture and Sports
Karakalpak State University named after Berdakh

Abstract: The article is devoted to the development and spread of national sports in Uzbekistan. It highlights the state policy regarding the preservation and popularization of national sports and folk games, which are held regularly and everywhere in order to attract the population, especially young people.
Key words: Youth, sports, sports games, national sports, folk games.

РАЗВИТИЕ И РАСПРОСТРАНЕНИЕ НАЦИОНАЛЬНЫХ ВИДОВ СПОРТА В УЗБЕКИСТАНЕ

Илал Нажимов
Доцент межфакультетской кафедры физической культуры и спорта
Каракалпакский государственный университет имени Бердаха

Аннотация: статья посвящена вопросам развития и распространения национальных видов спорта в Узбекистане. В ней освещена политика государства в отношении сохранения и популяризации национальных видов спорта и народных игр, которые проводятся регулярно и повсеместно с целью привлечения населения, в особенности молодежи.
Ключевые слова: молодежь, спорт, спортивные игры, национальные виды спорта, народные игры.

The main goals and objectives of the development of physical culture and sports in Uzbekistan are the education of a healthy young generation, the full encouragement and development of folk games and sports, the active involvement of the widest sections of the population in the physical education movement, the achievement of organic unity of physical education with the practice of building society.

Citizens of the Republic of Uzbekistan, regardless of gender, race, nationality, language, religion, social origin, beliefs, personal and social status, have the right to engage in physical education and sports, create public physical education and sports associations, and participate in the management of the physical education and sports movement. Foreign citizens and stateless persons have equal rights in the field of physical culture and sports with citizens of the Republic of Uzbekistan.

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According to the "Regulations on the State Committee of the Republic of Uzbekistan for Physical Culture and Sports" No. 148 dated March 16, 2017, in accordance with the established procedure, provide comprehensive assistance to the development of national sports and folk games of Uzbekistan, provide financing for the organization and holding of sports competitions in the country and abroad on national sports, physical education and mass events in folk games, as well as widespread promotion and development of national sports in the international sports arena. National Uzbek games have served and continue to serve not only as a means of entertainment for children and youth, but also as an important factor in their physical development and health promotion. Through national games and national sports lies the path to modern classical sports games and individual sports that are widely cultivated in our country.

The Uzbek people have been famous for many centuries for their palvan wrestlers and legendary riders, who are the founders of the national sports of Uzbekistan, such as kurash, belbogli kurash, turon and boykurgan. Thanks to independence, it became possible to present to the world our national sports, which are the cultural heritage of the country.

If Japan in the sports world is associated with millions of sports fans as the birthplace of judo, karate, sumo, China - wushu and kung fu, Korea - taekwondo and sireum, England - football, Canada - ice hockey, USA - baseball, basketball, American football etc., then now the national sports of Uzbekistan - kurash, belbogli kurash, turon, boykurgan and others will associate our state in the international sports arena. Today, Kurash wrestling has developed in more than 50 countries around the world, where in addition to world championships and championships, continental competitions are also held. It is gratifying to note that the inclusion of Kurash wrestling in the program of the Asian Games is another one of the most important events in the history of the sports movement not only in Uzbekistan, but also in the world.

In the context of updating the content of education, great importance is attached to the task of comprehensive development of the individual and his moral consciousness. Currently, the role of humanization of the educational process, instilling in students a scientific worldview, value orientation, and the formation of cognitive interests is significantly increasing. Today, it is no longer enough for students to master knowledge and skills; it is necessary to ensure that they develop an active life position. During the educational process, both the development of the student's personality and his educational activities are in the teacher's field of view. A physical education teacher experiences great difficulties when conducting outdoor games, since the composition of the students has different physical training, mental development, different degrees of proficiency in motor actions, different levels of knowledge and interests, and different motivational needs in the game.

Often a good game, but one that does not correspond to the interests of children, does not give the expected pedagogical result. In one case, the teacher needs to unite children and organize them, in another - to help identify children's initiative, in the third - to improve certain physical qualities. Organizing the actions of participants in various games provides them with creative initiative in choosing ways to achieve the goal.

National sports

The culture of each nation is unique, manifested in the language, traditions, customs, way of life, games. Preserving the continuity of spiritual values, norms, achievements is very significant, since this heritage is a necessary condition for the existence of a people as a nation. It is known that physical culture, having a long

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history, is an integral part of the general culture. And, for the public of Uzbekistan, the successes of both high-level sports and mass physical culture are important, where national sports that convey the social memory of the people are a bright component.

It should be noted that the way to modern sports lies through the national games. Let us list some traditional sports that have become an important component of the cultural memory of society and are being developed in modern Uzbekistan.

So, equestrian sport was and remains a very popular type of competition. For example, kupkari (ulak), a kind of equestrian competition, was formed at the beginning of the 2nd-3rd centuries BC, requiring resourcefulness and dexterity from riders. In the Turkic languages, the etymological meaning of the name "kupkari" was lost and traditionally began to be called by the name of the inventory - "ulak". In a competition in front of a hundred riders, they threw the carcass of a goat or a calf; riders tried to lift the carcass without dismounting; the task is to escape from the crowd, fighting off the pursuers. Ulak is, first of all, a competition, a game held during holidays, wedding celebrations, in which riders from nearby villages were involved, divided, according to the rules, into two groups. According to the results, the names of the winners were announced, who were awarded prizes, gifts (cattle, clothes, carpets, cash rewards, etc.). For thousands of years, the game has been formed, developed, gained popularity by the foundations of the people, inextricably linked with national traditions and way of life.

Alaman-baiga (poyga) is a folk race that reached its greatest development in the Middle Ages. It was held, as a rule, during the holidays, has not lost its significance, is included, as far as possible, in the program of holidays and sports and athletics. According to the rules: they saddled their horses, lined up in one line and, on a signal, rushed forward to a certain place, then the whole galloping cavalcade turned back; the one who returned first was considered the winner.

Baiga (poyga) - a long-distance jump. It was usually held during major complex competitions in the form of races over a distance of 50 km.

Chowgan - horse polo. The beginning of development dates back to the 7th-8th centuries, the game was one of the main entertainments of the warriors. The riders had special sticks (suljans) with which the ball was knocked out. The players were divided into two parties; each team tried to pass the ball into the opponent's goal. Sometimes the chougan was not played on horseback, reminiscent of modern field hockey.

In addition to equestrian sports, dorbozlik, the art of performing with a balance beam (langar) on a fixed rope, enjoyed success. The art of balancing act originated over 2.5 thousand years ago in the East, and then spread throughout the world. Rope walkers, who demonstrated excellent physical fitness and good coordination, performed during festivities and festivities.

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The next sport that won the love of the people is kurash, the national belt wrestling. In the course of measures to revive the historical heritage, special attention was paid to this type of martial arts, since it is Uzbekistan today that has the primacy in its identification among other martial arts, the development of certain rules as a sport, and giving it international status. The duel, being a national treasure, embodied the centuries-old philosophy, values, respect for the opponent, humanism, honesty. What simple rules confirm, we recall: painful and suffocating techniques, grips below the waist and all kinds of manifestations of aggression and humiliation are prohibited; the fight takes place exclusively in the stance, it is forbidden to wrestle in the prone position, when the body of the opponent is supported on the third point, the fight stops. Kurash is, first of all, a competition of strength and dexterity with mutual respect of rivals for each other. All this makes kurash a simple, understandable, spectacular, dynamic and safe sport, accessible to both young men and people of advanced age. And, the terms, for example, “kurash”, “halol”, “taazim”, “tukhta”, “yonbosh” naturally entered the international sports vocabulary.

Interest in kurash wrestling led to the development of other types of martial arts. For example, this is confirmed by the popularity, especially among young people, - “Uzbek zhang sanati” (Uzbek martial art) - a modern type of martial art that embodies the centuries-old traditions of the martial arts of the peoples of the region. This martial art was created on the basis of the studied heritage, enriched with effective techniques of various combat systems. This martial art is characterized by certain areas: sports, health-improving (for the age after 40 years), art of the hand (3,000 hand techniques), martial art of the Temurids (work with a knife, saber, stick, spear), combat wrestling. The complexes of defensive and attacking actions are named after historical figures, which undoubtedly contributes to patriotic education.

Another no less interesting type of martial arts, which cannot be ignored, is Turon (the historical meaning of the word is dexterous, strong, fearless) - martial arts containing elements of various styles that were

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encountered in ancient times in fights that took place on the territory of modern Uzbekistan. According to experts, in the past in the trading cities there were people involved in the escort and protection of caravans following the Great Silk Road. They possessed unique combat skills that allowed them to successfully confront numerous and well-armed opponents. These martial skills, which have been properly systematized and reworked, form the basis of Turon martial arts. At the same time, it should be taken into account that martial arts carries a specific philosophy, a system of worldview, acquaintance with which allows a fighter to achieve the required level of psychological preparation.

The listed national games, physical exercises, national sports that have been formed over the centuries, of course, comprehensively developed not only physical qualities (strength, speed, endurance, dexterity, flexibility), but also moral and volitional ones. Gradually, the utilitarian significance of the physical direction of personality development was not only supplemented by the promotion of a healthy lifestyle, active physical education and sports, but turned into a part of everyday life, into a form of leisure, and grew into the concept of its further organic development.

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Volume 1, Issue 3, March, 2024
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ISSN (E): 2942-9943

PRINCIPLES OF DEVELOPMENT OF THE SPORTS SECTOR IN UZBEKISTAN

Abadan Ismailova
Department of Physical Education
Karakalpak State University named after Berdakh

Abstract: On the basis of historical and legal documents, exact data there is represented chronological dynamics of development in the sphere of physical culture and sports, as well great achievements and major events sport movement of our country in the independent years.
Keywords: concept of renovation, reform, progress, and modernization, the legal framework of sports, continuous system, the mass sport movement, children's sports, women's sports, elite sport, sports facilities, current requirements.

In the structural changes in the economy, in the development of the social sphere and its infrastructure, the sports industry is a consistently developing field along with modern organizations that meet world standards. When talking about the economic efficiency of organizations providing physical education and sports services, it is appropriate to assess their importance in raising the standard of living of the population and creating a healthy environment. It is a matter of scientific substantiation of the technology of developing a target strategy of marketing in physical education and sports service organizations and talking about its optimality. The issuance of a number of decrees of the President of the Republic of Uzbekistan and decisions of the Cabinet of Ministers on the development of cport indicates how urgent the development of this field is.

Today, it is clear to everyone that economic factors alone cannot join the ranks of developed countries. Other aspects are also very important in this regard. When forming a new value system in society, it is extremely important to change the mentality of people, to form a way of thinking in them that meets the demands of reforms. If there is no confidence in the success of the reforms implemented in our country, it is impossible to form a new way of thinking. it has been one of the important factors determining the development of the state and society in all periods. The role and importance of the skills that arise on the basis of education and innovative scientific research in the development of a person as a person is incomparable. A number of reforms have been implemented in Uzbekistan within the framework of this system. In particular, the adoption of the Law on Education and the National Personnel Training Program is one of the bold steps in the development of the field.

The pace of today's development is accelerating, which determines the development of the physical education and sports system in cooperation with various fields. In particular, the increasing importance of socio-cultural problems in physical education and sports and the various levels of influence of incoming techniques and technologies, studying the social (social) image of athletes, classifying the characteristics of problems by looking at them under the prism of spiritual values, religion, culture creates the need for research on the basis of Today, the science of Uzbekistan is aimed at creating a technological base of an innovative economy, which can quickly adapt to the changing needs of the market, and is aimed at providing high-tech products (services) that are popular in our country and all over the world. [3.79.B] Modernization of science and modern technologies is considered one of the priority tasks to be solved in the field of physical education and sports of the Republic of Uzbekistan. To popularize physical education and sports in Uzbekistan, to create the necessary conditions and infrastructure for the promotion of a healthy lifestyle among the population,

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especially among young people, to ensure the appropriate participation of the country's representatives in international sports arenas, and to in order to occupy a suitable place, it is important to use the innovative achievements of science on a large scale.

In order to fulfill such a responsible task perfectly, it is important to rapidly develop the national science and personnel training system. is getting married. Using the most advanced information technologies, modernizing the field of physical education and sports and for this purpose expanding the international integration relations between science and 8 production is the nearest and most convenient way to achieve the set tasks.

In the Decree of the President of the Republic of Uzbekistan dated March 5, 2018 on measures to fundamentally improve the state management system in the field of physical education and sports, the existence of a number of systemic problems and shortcomings in the organization of physical education and sports, that is, firstly, the state policy in this field that there are obstacles to effective training and full use of the existing sports potential of the country, secondly, the concept of physical education and sports development has not been developed, thirdly, innovative research and methodological developments of training athletes and their medical care, existing standards that meet modern requirements it is noted that the absence does not ensure the establishment of a quality training process.

On September 11, 2023, the President of the Republic of Uzbekistan adopted the Decree No. PF-158 "On the strategy of Uzbekistan-2030". With this decree, the development strategy of the Republic of Uzbekistan in all fields until 2030 was determined.

In the referendum held on April 30, 2023, a new version of the Constitution of the Republic of Uzbekistan was adopted by popular vote, and the constitutional foundations for the establishment of New Uzbekistan were created. The presidential election held in accordance with the newly revised Constitution once again shows the political maturity of our society and the full support of our people for the reforms being implemented to build a new Uzbekistan. At the same time, in the updated constitutional and legal conditions, there was a need to improve the main directions of our country's development and bring the ongoing large-scale reforms to a new stage.

To realize the desire of our people to build a free and prosperous, powerful New Uzbekistan, to create all the opportunities for every citizen to develop their potential, to raise a healthy, educated and morally mature generation, global "Uzbekistan - 2030" strategy was approved in order to create a strong economy, which has become an important link of production, guarantee justice, rule of law, security and stability.

In the "Uzbekistan - 2030" strategy:

– taking a place among countries with higher than average income through stable economic growth;

– organization of educational, medical and social protection system that fully meets the requirements of the population and international standards;

– creation of favorable environmental conditions for the population;

– establishment of a fair and modern state in the service of the people;

– the main ideas such as guaranteeing the sovereignty and security of the country were reflected.

Within the framework of the "Uzbekistan - 2030" strategy, a Republican commission was established for the achievement of all the goals that have not lost their importance and for the fulfillment of urgent tasks, which are defined in the development strategy of New Uzbekistan and continue to be implemented.

According to the results of the systematic study and studies of the work carried out in connection with the strategic directions, the determination of the systemic factors that prevent the realization of the goals and tasks set in the development strategy of New Uzbekistan and "Uzbekistan - 2030" within the framework of the implementation of the strategy, specific measures for their prevention were determined.

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

In order to establish effective public control over the consistent, high-quality and timely implementation of the reforms defined under the slogan "Uzbekistan - 2030" strategy - people's strategy" to the "Strategy of Development" center:

Together with the Ministry of Digital Technologies, the level of implementation of the "Uzbekistan - 2030" strategy, the qualitative implementation of the reforms defined in it, is evaluated by the population in terms of each goal and its indicators, which creates the opportunity to leave their opinions on them and express initiatives. launching an online portal;

summarizing the evaluation results and opinions from the population and presenting them to the Republican Commission every month;

Together with the coordinating council for the implementation of national goals and tasks in the field of sustainable development in the period until 2030, the analysis of the implementation of the "Uzbekistan - 2030" strategy in accordance with the "Sustainable Development Goals" of the United Nations is carried out with the public. to establish a system of joint conduct and announcement of results;

The tasks of preparing informational and analytical comments on the implementation of the "Uzbekistan - 2030" strategy and measures for its implementation in the relevant years, publishing them in foreign languages and ensuring wide distribution were assigned.

The "Uzbekistan-2030" strategy consists of 5 main areas:

1- To create suitable conditions for each person to realize his/her abilities, the measures from 1 to 44 are defined, to fundamentally improve the preschool education system, the general secondary education system, to increase the number of pedagogic personnel aligning knowledge and qualifications with international standards, developing the professional education system, improving the management of higher education institutions, increasing the share of young researchers, supporting their scientific research;

in connection with the reforms in the provision of public health, increasing the average life expectancy of the population, bringing primary medical services closer to the population, increasing the effectiveness of prevention and treatment of hereditary diseases among children, reducing the mortality of mothers and children, early detection of oncological diseases and reducing the death rate, increasing the efficiency of prevention of non-communicable diseases, forming proper nutrition and a healthy lifestyle among the population, introducing digital technologies into the medical field;

reforms on the provision of social services and poverty reduction - support for disabled persons, improvement of the social protection system for children, support for women and ensuring gender equality, comprehensive support for intellectuals support, reduce the level of poverty in the country, provide the population with work, improve the insurance system, provide vocational training of citizens at the expense of the state;

Reforms in the fields of state policy and sports related to youth - creation of a system of training young people in modern professions and foreign languages; Increasing the intellectual potential of young people, strengthening social protection of young people and reducing unemployment, popularizing the IT sector and increasing the export of services in the sector, expanding the coverage of young people engaged in physical education and sports, increasing the share of young people who are professionally and permanently engaged in sports, qualified for national teams and improving the system of training effective athletes; Reforms to ensure spiritual development and bring the cultural sphere to a new level - to ensure the stability of the social and spiritual environment in society, to popularize masterpieces of Uzbek and world literature, to develop the provision of information and library services, To increase the tourism potential of our country by promoting the national art of Uzbekistan, to protect the cultural heritage, to develop the activities of cultural organizations

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(establishing the activities of cultural centers, music and art schools, parks, summer cinemas), development of national cinematography.

In the last ten years, as a result of the rapid development of the field of physical education and sports in our country, new types of sports, new sports bases, sports equipment, inventories and technologies, that is, the sports industry, are developing. At the present time, it is necessary to train qualified, mature, professional young talented managers who have skills formed on the basis of education and scientific and innovative research in the field of physical education and sports, and meet the requirements of the intense era. If we pay serious attention, we can see that managers who can meet the requirements of world education standards are being trained in prestigious universities in the developed countries of the world, especially in Great Britain, USA, Russia, France, and Germany.

Such managers. and they manage leading sports organizations and clubs in foreign countries. Sports organizations and clubs led by them are achieving great success not only in the field of sports, but also economically and financially. In our country, physical education, sports and national games are taking a strong place in the educational system as the main means of education. Athletes of Uzbekistan participated as an independent team in the Olympic and Asian Games, world, Asian and other prestigious international sports competitions and achieved initial success. These 9 aspects encourage the leaders of republican sports organizations to act more proactively.

It is worth noting that in order to strengthen the health of the population, the special tests "Alpomish" and "Barchinoy" were implemented, various sports competitions of schoolchildren and students, "Seeds of Hope", "Barkamol Avlod" games, Universiade, national Games festivals and regular holding of spartakiades and championships in residential areas, labor teams are noteworthy. Large sports facilities are being built in all regions and central cities, new sports schools, lyceums, vocational colleges are being established. The types and number of sports teams are increasing. In this regard, the purposeful organization of events that improve public health and improve sports skills requires a lot of perseverance and attention from experts, public agencies and sponsors. In this regard, leading physical education and sports activities, training mature personnel in this field, improving their skills based on the requirements of the times is one of the important problems. Physical education and sports management are the science that teaches how to study and solve these problems. The main goal of the science is to equip future specialists with methods of managing physical education and sports movement.

According to the press service of the National Olympic Committee of Uzbekistan, in order to regulate the tasks specified in the decree of the President Shavkat Mirziyoyev on the measures to fundamentally improve the state management system in the field of sports, the NOC gathered the leadership of the Olympic reserve colleges together. Heads of regional physical education and sports departments, heads of sports federations and associations of our country also took part in the event.

The chairman of the National Olympic Committee of Uzbekistan, Umid Akhmadjonov, led the event. In a meeting with the participation of the Minister of Physical Education and Sports of the Republic of Uzbekistan Shoakram Israilov, his first deputy Oybek Kasimov and the General Secretary of the NOC Jasur Matchanov, in agreement with the colleges and sports federations of the Olympic reserves, the admission quotas there were determined based on the demand in that area. , the revision was the main focus.

Umid Akhmadjanov spoke at the meeting and we should determine the quotas according to the demand. Places in sports were distributed accordingly. We will not force a young athlete who is interested in boxing to train in volleyball. Therefore, the representatives of the college should revise it according to the demand in agreement with the federation. In which region do the heads of the federation see prospects for the development of their sport? Today they will make their proposal in this regard.

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https://proximusjournal.com/index.php/PJSSPE
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Some colleges teach 29 sports. So, can we say that classes and training are organized at a high level in all of them? How can one college develop 29 species? We saw in Andijan that 3 students are accepted for volleyball every year. Actually, if 6 people play volleyball, and there are reserve players, what do we want to develop with 3 athletes?

Now we will divide the colleges into regions. Boxing, judo and martial arts are in high demand, and they can probably be left in all Olympic reserve colleges. However, a center should be created for sports that are lagging in development. 3 volleyball players from Andijan, Fergana and Namangan regions will not achieve anything. We need to unite them throughout the valley and raise the level of training. Olympic reserve colleges should not be involved in the promotion of sports at all.

The head of our state pointed out that this work should start from schools. Colleges will be the reserve and base of the national team in their name, and only skillful young athletes must be there. That's the only way only mature and talented athletes will grow up in colleges. First of all, this strengthens healthy competition among young people. He emphasized that where there is competition, there will be growth.

In turn, the Minister of Physical Education and Sports, Shoakram Israilov, spoke about the need to pay special attention to every detail when making a plan.

We have seen your suggestions for sports colleges. From now on, the admission criteria will also be reworked. Representatives of the NOC and the Ministry take part in the exams. They control the admission processes. If necessary, the mass media will also cover the process there. People should see who is admitted to this educational institution based on what criteria. Because the main candidates for the national team should come from the colleges of Olympic reserves. The heads of regional physical training and sports departments are also responsible for this issue.

It's no secret that the state allocates billions of funds for the development of sports. It was also mentioned that the head of the NOC will strictly control these funds and pay close attention to their proper spending.

- We should not waste state money. Also, we should not waste the time of our young people who are forced to study there. Maybe, if we can guide them properly, they will become good doctors, pilots, and drivers in the future. We want the work done and the funds spent to bear fruit. Let there be competition in admission processes. Athletes should be proud of the fact that they are studying at that university. There will be no problems with organizational matters. The state provides everything. In addition, we need young people who are not children of acquaintances, but who have real talent. No longer do colleges worry about feeding athletes, they work with their classes and practices. Other companies work on the diet of each athlete and what nutrients are in his food and drink. For the development of team sports, qualified coaches from abroad will be attracted - said Umid Akhmadjonov.

It was also informed at the meeting that from now on, there will be no football course in the colleges of Olympic reserves, that a separate academy for this type of sport will be established in each region, and that these academies will be under the direct supervision of the UFA. Officials who participated in the meeting expressed their suggestions regarding admission processes. The process is still ongoing. The National Olympic Committee will continue to provide detailed information on the meeting.

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Volume 1, Issue 3, March, 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

DEVELOPMENT STAGES OF PHYSICAL EDUCATION, SPORTS AND NATIONAL GAMES IN UZBEKISTAN

Kamola Muradova
1st-year Master's student of theory and methodology of physical education and training
Karakalpak State University

Abstract: During this period of independence in Uzbekistan, major events were held, focusing on the restoration and development of sports and National Games. Great attention has begun to develop many mass sports in these years. It was aimed at turning people into a way of life Physical education and sports. In its place, strengthening the reserve of professional sports through the development of mass sports, it was aimed at growing sports indicators.
Keywords: Mass Sports, national struggle, folk National Games, physical education, sports, harmonious generation, healthy lifestyle, Universidad, sprouts of hope, professional.

First, September 1, 1991 went down in history as a day that made a radical change in the life of our people. Our country has taken rapid steps towards the establishment of a democratic state on the path of independence that it has chosen. Thanks to independence, great opportunities have been created for re-studying our history. On this basis, there was an opportunity to study the stages of physical education and its development in our recent history. Studying the history of the development of physical education and sports in the Republic of Uzbekistan from 1991 to 2006, it is necessary to directly refer to the policy of our country in this field. It was primarily aimed at improving the general health of the population through the development of mass sports, making physical education and sports a way of life for people.

The goal of our country is to strengthen the professional sports reserve and increase sports performance through the development of mass sports. We can study them in the following periods.

The first stage, including the years 1991-1997, during this period, which made a fundamental turn in the life of our republic, relevant laws, presidential decrees and decisions of the Cabinet of Ministers aimed at developing the field of physical education and sports in the republic were developed. It defined the legal, economic and organizational foundations of sports and clearly indicated the measures for the development of sports.

During this period:

- the organizational foundations of physical education and sports management were improved;
- The National Olympic Committee of Uzbekistan, sports federations were established;
- physical education and health promotion, mass sports activities, national sports and games were developed;
- the system of providing funds for physical education and sports was improved, the material and technical base was strengthened.

In these years, great attention was paid to the development of many mass sports. In particular, the world championships in national wrestling since 1992, the "President's Cup" international tournament in tennis since 1994, the "Tashkent Open" international women's tournaments since 1996, as well as the "Challenger" in the cities of Fergana, Samarkand, Gulistan, Bukhara, Karshi. ", "Futures" and "Satellite" international tournaments began to be held.

In addition, the Asian Boxing Championship (1996) and many official competitions and international tournaments in wrestling, boxing, oriental wrestling, sports games were held in Tashkent, Bukhara, Karshi,

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Termiz and other cities. The most influential athletes of many countries took part in it, which in turn led to an increase in the number of people interested in these types of sports and an increase in popularity.
During this period, Uzbek athletes began to triumph in international arenas. For the first time, Uzbekistan as an independent team took part in the Winter Olympic Games in 1994 and won the first gold medal (L. Cheryazova), and in 1996 the number of medals increased to two in the Summer Olympic Games (A. Bagdasarov, K. To Lyaganov).
In this period of the years of independence, the main attention was paid to the restoration and development of the national games of the people, and large events were carried out. On the initiative of U. Karaboev, on April 25, 1991, the first Republican national games festival was organized in the form of a theoretical and practical competition in Forish district (Jizzakh region). The team of the former Republican State Sports Committee, the Jizzakh Regional Government, the specialists of the Kori-Niyozi Republican Pedagogical Research Institute, professor T.S. Usmonkhujaev Jizzakh DPI team showed great initiative and carried out material, financial and organizational activities.
Such games were repeated every year in April-May in Forish. These games, held in 1994-1996, went down in history under the name "People's National Games of the Republic of Olympiad".
In May 1996, the II Republican People's Games Olympiad dedicated to the 660th anniversary of the birth of Sahibqiron Amir Temur was successfully held at the Kyzilkyr park near the center of Forish District, Yangikishloq. 11 teams took part in it to win 9 rounds and overall. The competition was watched by thousands of Jizzakh residents from other regions of the country, as well as guests from the USA, Norway, and Kazakhstan. The leading teams in the Republican Olympiad had the following points before the last round: Jizzakh - 157, Surkhandarya - 103, Kashkadarya - 87, Samarkand - 80, Fergana - 68 points. The State Physical Education and Sports Committee of Uzbekistan ceremoniously awarded diplomas and gold, silver, and bronze medals to the teams that took 1-3 places in sports during the competition. At the end of the Olympics, valuable souvenirs were presented to each member of the prize-winning teams.
Studying this stage is extremely important from a historical point of view, because it was this period that determined the prospects of physical education and sports in our country. Therefore, we can call this period in the first years of independence the period of "formation" of independent Uzbek sports.
The second stage, including the years 1998-2006, this period also started the period of "development" of physical education and sports as an organic and logical continuation of the above practical works. During this period, the leadership of our country made special decisions and developed measures for the development of national sports, professional and mass sports, women's and children's sports, national games.
In the first years of independence, the main goal was to instill the desire and desire of young people for sports, to further strengthen the principles of a healthy lifestyle in our country, and to organize a system of sports competitions aimed at attracting pupils and students to continuous sports training in our country in accordance with the National Personnel Training Program. year. In the decision, it was decided to hold sports competitions of students and young people "Umid Nihollar", "Barkamol Avlod", "Universiade" once every three years.
The plan for holding the republican final stages of these sports competitions in the regions has also been developed.
The principles of the competitions were formed based on the instructions given by the President of the Republic of Uzbekistan at one of the meetings of the sponsoring board of the Children's Sports Development Fund of Uzbekistan.
According to the official information on the organization of "Barkamol Avlod" sports competitions, more than 465 thousand students are studying in about 300 secondary special educational institutions, academic lyceums

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https://proximusjournal.com/index.php/PJSSPE
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and vocational colleges in the republic. More than 43,000 of them are engaged in physical education and sports, almost more than half of them participate in sports clubs.

The first final part of the "Perfect Generation" sports competition was held in Jizzakh in 2001, Andijan in 2003, and the next in 2005 in the cities of Tashkent region (Chirchik, Ghazalkent, etc.), and the physical fitness of future professionals was tested. . Judging by the results of the competitions, wrestling, football, athletics, swimming and other sports are well underway in secondary special educational institutions and vocational colleges in Tashkent city, Samarkand, Andijan, Fergana, Bukhara regions. placed

Also, the results of the competitions showed that there is still a lot of work to be done in this field in a number of regions.

The pinnacle of multi-level sports competitions is the Universiade. In 2000, when sending a congratulatory message to the participants of the first Universiade held in Namangan, I.A. Karimov stated the following: "Sport is an important factor in achieving not only physical, but also spiritual maturity. It builds will, strives for a clear goal, teaches to overcome difficulties with patience and perseverance.

It cultivates feelings of confidence, pride and pride in the human heart. A nation with healthy, educated and dedicated children will surely build its great future.

The time demanded that students' competitions be called "Universiade" based on the model of the International Student Universiade. For this reason, universiades were held in Namangan (2000), Bukhara (2002) and Samarkand (2004). It was decided to hold the Universiade on the foundations of international programs and continuing education every three years. More than 60 sports teams (teams) of higher educational institutions took part in the first Universiade. A program was prepared for 14 sports, and the competitions were intense and interesting. UzDJTI took the lead with 758 points, 37 gold, 48 silver and 18 bronze medals. The second and third places were taken by Namangan DU (21 gold, 15 silver, 31 bronze medals, i.e. 668 points), and 59 Fergana DU of Uzbekistan (11 gold, 15 silver, 8 bronze, i.e. 316 points) took over. Andijan University, Gulistan University, Bukhara University, Samarkand University, Jizzakh DPI, Termiz University, Tashkent Agrarian University took their places in the top ten.

One of the socio-educational and state policy aspects of the Universiade is that talented athletes are tested, and selected ones are invited to international tournaments, world championships and the Olympic Games.

Today, the activities of physical education teachers and sports coaches are of great importance in holding the sports competitions "Barkamol Avlod", "Umid Nihollar", "Universiade", and the participation of young people in the national teams at the district-city, regional and republic levels. is doing. Not only sports experts, but also famous writers, well-known representatives of education, employees of state agencies, heads of community organizations, veterans of labor, neighborhood village elders are involved in the promotion and practical work of attracting all layers of the population to sports. is directly involved.

It should be recognized that this competition is gaining the most importance in terms of content and essence as a new stage of continuous sports competitions ("Sprouts of Hope", "Barkamol Avlod", "Universiade"). Improving the health of the population, raising the physical fitness of schoolchildren and students, improving the skills of talented athletes based on the requirements of the time and international standards, as well as improving the working skills and productivity of the working masses and intellectuals, and most importantly, improving life through a healthy lifestyle. Special attention is paid to prolongation and education of a healthy generation.

Historically, evidence of the development of physical education and sports during the years of independence (1991–2006) is noteworthy. Statistical (digital) data of republican sports organizations, associations (communities, federations), public education, ministries of higher and secondary special education and annual reports, official documents, archival materials of the State Statistics Committee can be provided. . The

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following comments are an example of some indicators of the first years of independence: 5.5 mln. More than 100,000 people were engaged in physical education and sports. Including about 135,000 in 60 higher educational institutions, more than 147,500 in 225 secondary special educational institutions, and 4,6 million in more than 8,300 general education schools. About 100,000 pupils and students engaged in sports. About 544,000 people were regularly engaged in physical education and sports in more than 5,500 production enterprises.

It is known that the development of physical education and sports in the republic, the selection of gifted and talented young athletes, their training and preparation for world sports competitions and the Olympic Games is well under way. Serious attention is being paid to organizing competitions in many types of sports in neighborhoods and villages, as well as in labor teams.

In general, for 30 years, the leadership of the republic has paid special attention to the prize-winners and participants of the Central Asian, Asian and world sports competitions and the Olympic Games, and they are duly rewarded. Sportsmen's services and achievements have a worthy place in the history of republican sports. During this period, authoritative historical sources reflecting the development of sports in the Republic and the victories of talented athletes in international sports arenas were created. As mentioned above, during the years of independence, by studying and reviving the national games of the people, they are being purposefully used to educate young students to become mentally and physically fit. It should also be noted that various sports competitions are organized in modern sports and national games of the working people, rural youth and residents.

Traditional holidays dedicated to "Navroz", "Independence Day", "Harvest" and other great dates, cultural events include wrestling, boxing, strength testing, stone lifting, oriental wrestling and others. People's national games, especially entertainment games such as kopkari (goat), race, goalie are also shown. The main goal of this is to improve the health of the population by promoting physical education and sports, and to increase the moral and physical fitness of schoolchildren.

National games are one of the most popular cultural events in the values of the people. "Navroz" holiday, weddings and various traditional rites, feasts, have not passed without wrestling, kopkari (goat), races and other games since ancient times. Such events are praised in all types of folklore, including epics. The works of great scholars Abu Ali Ibn Sina, Alisher Navai, and Mirza Babur are interestingly and comprehensively described.

People's national games have several directions, and in their structure dances, lapars, sayings, askiyas and art of many genres are much more prominent. There are also a lot of folk games and sports games inherited from ancient ancestors. They can be divided into the following large groups, namely:

1. Struggles (Bukhara, Fergana, Khorezm, etc.).
2. Horse games (kupkari-ulak, race (yalov), girl chasing, horse riding, chovgon, etc.).
3. Doorman (exercises on the gallows, jokes and sayings).
4. Lifting a stone.
5. Tug of war.
6. Wrist strength test.
7. Action games.

Almost all such games are widely used in competitions and weddings.

In the mountainous areas of Samarkand, Bukhara, Kashkadarya, Surkhandarya, Jizzakh, Namangan, Syrdarya, Tashkent and other regions, wrestling, kopkari-ulok, races and various action games are constantly held. These games bring grace and blessings to weddings, and are receiving the applause of the audience, especially the interest of young students in national folk games and modern sports.

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In 1998, dedicated to the 1000th anniversary of the "Alpomish" epic, the Republican festival "Alpomish Games" was held in Termiz. The festival in 2000 was organized in the city of Fergana, and the third festival was organized in the city of Gulistan in 2002. In the programs of the National People's Games Republican competitions and "Alpomish Games" Republican festivals, wrestling, racing, kopcari (goat), "Storm", tug-of-war, wrist strength test, "Mindi", "Forty stones" (girls game) and other action games took place.

The purpose of this nation's national festivals is to preserve our ancient traditions and customs, restore national events that have been passed down from generation to generation, and deliver them intact for future generations.

It should be noted that republican scientific-practical conferences dedicated to the National People's Games (Jizzakh, Termiz, 1991), "Alpomish Games Republican Festivals" (1998, 2000, 2002) were also held. The contents of the national games of the people were explained in them. Also, a lot of lectures focused on the role of national games in the context of national values and their educational value were heard. Their summaries were included in the scientific collections of the conference. It would be appropriate if equestrian sports clubs were established among young people, and horse games were taught from a young age, and military-physical exercises performed on horses were taught to teenagers. Of course, the development of these sports requires a special natural environment or adapted conditions.

Also, it would be appropriate to introduce the use of national mobile games as part of mobile games and activities in families and kindergartens.

In conclusion, it can be said that during the years of independence, special attention was paid to the development of physical culture and sports in Uzbekistan. Today, sufficient legal and regulatory documents have been developed for the implementation of these works, and on the basis of them, the development of sports, participation in international competitions, and the promotion of national sports are gaining momentum. The main goal of the programs aimed at the development of the sports sector in the republic is to increase the interest in physical education of all levels of the population and to create the necessary conditions. The multi-level continuous sports competitions "Sprouts of Hope", "Barkamol Avlod", "Universiada" organized in our republic for schoolchildren, secondary-special and vocational colleges, and students of higher educational institutions promote physical education and sports. It was organized in order to popularize it and make it a way of life for young people. Athletes selected in these competitions joined the ranks of national teams and had the opportunity to participate in international competitions. In our republic, great importance is attached to the national games of the people, and many competitions and scientific conferences are organized in this regard. The revival and study of this national value of our people, which is passed down from generation to generation, expands the knowledge of our youth about national customs and traditions. It is appropriate to organize mass sports competitions in residential areas. In this, the games "Alpomish" and "To'maris" designed for people of all ages are popularized in our country by a popular sportsman in the neighborhood, self-governing bodies, holding meetings with scientists, psychologists, increasing the life expectancy of the population by involving older people in sports. In order to develop mass sports, based on international practice, it is necessary to organize "Gimnastrada" (mass gymnastics performances) for the population of all ages, to develop a special physical activity program for men and women;

- in order to know and promote national customs and traditions, it is necessary to include movement exercises from national folk games in the program of physical education lessons of schoolchildren.
- It is necessary to hold republican and international scientific conferences dedicated to various great dates, prestigious events, sports competitions related to the independence of Uzbekistan, physical culture and sports; It is necessary to expand the program topics of "Sport" TV channel, "Sport", "Uzbekiston futboli" newspapers and "Fan sportga" magazine. In them, it is necessary to provide analytical films about the participants, winners,

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coaches of international sports competitions, to organize televised sports games with the participation of famous people. In addition, the activities of sports veterans who made a great contribution to the development of sports in our country should be widely covered.

By solving the above shortcomings and problems, we can achieve further development of physical education and sports in our country, and the growth of mass sports.

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

TRENDS IN THE DEVELOPMENT OF SPORTS AND PHYSICAL EDUCATION IN THE REPUBLIC OF UZBEKISTAN

Bahromjon Allayarovich Kazakov
Interfaculty Department of Physical Culture and Sports
Karakalpak State University named after Berdakh

Abstract: This article discusses the development of sports and physical culture in Uzbekistan, consistent work to improve the material and technical base necessary for the formation of future champions.
Key words: Sport, physical culture, talented athletes, three-stage system.

ТЕНДЕНЦИИ РАЗВИТИЯ СПОРТА И ФИЗИЧЕСКОЙ КУЛЬТУРЫ В РЕСПУБЛИКЕ УЗБЕКИСТАН

Бахромжон Аллаярович Казаков
Межфакультетской кафедры физической культуры и спорта
Каракалпакский государственный университет имени Бердаха

Аннотация: В данной статье рассматриваются развитие спорта и физической культуры в Узбекистане, последовательная работа по улучшению материально-технической базы, необходимой для формирования будущих чемпионов.
Ключевые слова: спорт, физическая культура, талантливые спортсмены, трехступенчатая система.

In Uzbekistan, much attention is paid to the development of sports and physical culture. Over the years of independence, the country has created an effective system for training professional athletes, coaches and judges. The implementation of these goals contributes in every possible way to the widespread promotion of a healthy lifestyle, the education of comprehensively developed youth, and the further development of physical culture and sports in the republic.

An important legal basis for the reforms carried out in this direction is the Law of the Republic of Uzbekistan “On Physical Culture and Sports” and other regulations aimed at attracting citizens, especially youth, women and children, to physical culture and sports.

Today Uzbekistan is a sports country in the full sense of the word. A healthy lifestyle is being widely promoted among young people, and sports are becoming widespread. Uzbek athletes, achieving great victories at prestigious international competitions, demonstrate to the world the high sports potential of our country. The results achieved by our athletes at the 2016 Olympic and Paralympic Games held in Brazil presented Uzbekistan to the sports community of the world as a country where sports are developing at an accelerated pace. We are rightfully proud of this.

Young boys and girls, professionals of individual and game disciplines, defending the colors of the national flag, demonstrating exceptional training and phenomenal skill at representative forums, eloquently confirm

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https://proximusjournal.com/index.php/PJSSPE
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that they represent a country with rich sports traditions. The results of the measures taken are manifested in the growing number of our compatriots involved in sports and winning prizes at various international tournaments.

Many sports are practiced in Uzbekistan. The most popular: athletics, boxing, football, gymnastics, tennis, wrestling, kurash, cycling. Today the names of such outstanding and talented athletes as Ruslana Nuriddinova (weightlifting), Khasanboy Dosmatov (boxing), Shohibiddin Zoirov (boxing), Fazliddin Gaipnazarov (boxing), Shahrom Giyosov (boxing), Bektimir Melikuziev (boxing), Diyorbek Urozboev (judo)), Rishod Sobirov (judo), Elmurod Tasmurodov (Greco-Roman wrestling), Rustam Tulaganov (boxing), Ekhtiyor Navruzov (freestyle wrestling), Murodjon Akhmadaliev (boxing), and, of course, FIFA referee Ravshan Irmatov, as well as many others, glorified Uzbekistan is far beyond its borders.

In order to educate high-class athletes, consistent work continues to improve the material and technical base necessary for the formation of future champions. In particular, the Republican Specialized Children and Youth Sports School of Olympic Reserve in Rhythmic Gymnastics was created. The Central Asian Judo Center, the Republican Boxing Center and the sports complex of the Taekwondo Association were built. Thanks to the created sports infrastructure, Uzbekistan has become a venue for major international competitions, including the World and Asian Championships in boxing, Taekwondo, freestyle wrestling, fencing and other sports. The country pays serious attention to the selection of young talented athletes from among the students of sports clubs and teams and the organization of their training to improve sports skills, creating the necessary conditions for strengthening the sports reserve on the basis of the further development of schools of higher sports excellence and colleges of the Olympic reserve. In this regard, the policy pursued in Uzbekistan to expand the mass participation of children's sports, which rightfully is the basis for the formation of a healthy and harmoniously developed generation, is of particular importance.

The country has created a unique three-stage system for holding sports competitions among schoolchildren, pupils and students - “Umid Nihollari”, “Barkamol Avlod” and “Universiade”, which make an invaluable contribution to the training of gifted and talented athletes who worthily defend the honor of their homeland in international sports tournaments and the Olympic Games. An important step towards the development of children's sports was the creation, in accordance with the Decree of the First President of the Republic of Uzbekistan in 2002, of the Children's Sports Development Fund. The main goal of this foundation is to introduce children and the younger generation to sports from early childhood, to awaken their interest and love for sports, to educate the younger generation as physically and spiritually healthy, harmoniously developed individuals.

In June 2016, Uzbekistan was visited by the President of the International Olympic Committee (IOC), Thomas Bach, and the President of the Association of National Olympic Committees and the Olympic Council of Asia (OCA), Sheikh Ahmad Al-Fahad Al-Sabah. Eminent guests highly appreciated the quality of sports facilities and the scale of projects in our country. In their opinion, the increasingly significant achievements of Uzbek athletes at the Olympic and Asian Games, world and continental championships are the result of this creative work.

For outstanding services in the development of sports and the Olympic movement, the First President of Uzbekistan Islam Abduganievich Karimov was awarded a medal of the International Olympic Committee. Also, for his enormous contribution to the development of football in the country and in Asia, Islam Karimov was presented with an award from the Olympic Council of Asia. Thus, thanks to the large-scale transformations carried out in the country, sports have become one of the prestigious areas of activity, especially among young people. And the names of talented representatives of Uzbekistan, who have received prestigious international awards, are inscribed in the annals of domestic and world sports.

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https://proximusjournal.com/index.php/PJSSPE
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The results of the comprehensive work of the state in the field of physical culture and sports can be seen in the results shown by athletes of Uzbekistan on the world sports arena. Thus, sport is the most important and powerful factor in raising a harmoniously developed generation. Sport is, first of all, a healthy generation, a healthy future. “Only a healthy people, a healthy nation is capable of great achievements.”

The President of the Republic of Uzbekistan Shavkat Mirziyoyev was informed about upcoming major sporting events and plans for the development of the sports sector. Sports in our country are developing dynamically. Such sports as football, volleyball, boxing, kurash, chess, tennis, weightlifting and athletics are widely popular. Organized according to the idea of the head of our state, the “Olympiad of Five Initiatives” promotes sports and physical education among the younger generation. During the presentation, proposals for the development of mass sports, ethnic sports and gymnastics were considered. In particular, it is proposed to expand the “Five Initiatives Olympics” program from 9 to 12 sports and, for the first time, hold it among persons with disabilities in 5 sports. The international equestrian tournament, held annually on the eve of the Navruz holiday in Surkhandarya, is proposed to be organized in other regions of the country. To develop the potential of martial arts, it is planned to open hand-to-hand combat sections in all sports schools.

As you know, on May 25, 2022, the Presidential Decree “On measures to popularize and develop types of ethnic sports” was adopted. In particular, it determines the holding of the International Ethnosports Festival in the city of Khiva every two years. The first festival is scheduled to be held on September 7-10 this year in Ichankala. It will include folk games and sports competitions, craft exhibitions, a melon festival, a pilaf cooking championship and theatrical programs. The head of state gave instructions to carefully prepare for the festival, provide all amenities for participants and tourists, and create an International Ethnic Festival Park in the city of Khiva. In accordance with the Presidential Decree of December 23, 2022, a lot of work is being done to develop gymnastics. In particular, gymnastic training centers are being organized in the cities of Nukus, Samarkand and Fergana. These are specialized sports educational institutions, the graduates of which will be awarded diplomas in the specialty of a coach and breeder. Projects for the construction, reconstruction and equipping of buildings for the centers are currently being developed. These sports institutions will begin operating from the 2024/2025 academic year. The head of state noted the need to introduce in these centers the most advanced methods of training athletes, developing nutrition, and creating the necessary conditions to make it convenient for students to get to classes.

Development and dissemination of national sports in Uzbekistan

National sports in Uzbekistan have a long history and rich heritage. In modern conditions, the state is actively developing and popularizing these sports. Thanks to government support and funding, national sports have become widespread throughout the country. They are held regularly at various competitions and festivals, attracting a huge number of participants and spectators. This process of development of national sports in Uzbekistan continues constantly. The state is actively investing in the construction of sports facilities, the development of training programs and the training of highly qualified specialists. Such measures make it possible to increase the level of competition and achieve significant results in the international arena. The development of national sports in Uzbekistan also contributes to the development of tourism and attracting the attention of the international community. Many tournaments and competitions attract athletes and spectators from different countries, creating a favorable atmosphere for international exchange of experience and cultural interaction.

Horse riding

Horse riding is one of the oldest and most popular national sports in Uzbekistan. The Uzbek people are famous for their legendary riders and their outstanding riding skills. This sport is actively developing and is held at various competitions and festivals, attracting not only athletes, but also a wide audience. Horse riding has deep

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roots in the history and culture of Uzbekistan. It is part of the national heritage and traditions of the people. Uzbek riders demonstrate their skill and grace at a high level. They attract attention not only with their technique and skills, but also with the beauty of their outfits and jewelry. Horse riding competitions are held at various levels - from local to international. Horseback riding attracts sports enthusiasts and spectators who enjoy the beauty and elegance of this sport. Uzbekistan is proud of its horse riders and continues to develop and popularize this unique national sport.

Wrestling

Wrestling is one of the most popular national sports in Uzbekistan. This ancient sport has deep historical roots and traditions that are closely connected with Uzbek culture. Wrestling is widely practiced and covers all age categories - from youth to adults. Uzbek wrestlers are known for their skill and achieve significant success in international competitions. A special feature of the national type of wrestling in Uzbekistan is “kurash”, which has its own characteristics and requires certain skills and strategies. Kurash is an important part of the country's sports culture and is considered a national treasure.

Judo

Judo is a popular sport in Uzbekistan. Many sportsmen and sportswomen practice judo and represent the country in various competitions. The government is actively developing this sport and providing support to coaches and athletes. Uzbekistan has many outstanding judo athletes who achieve significant success both at the national and international level. Judo began to actively develop in Uzbekistan after gaining independence. Special schools and training centers were created to train young judo athletes. As a result of intensive development and government support, Uzbekistan has become one of the leading judo countries in Central Asia. Uzbekistan has many outstanding judo athletes who have achieved significant results in the international arena. Uzbek judokas have won medals at the Olympic Games, World Championships and Asian Games. They demonstrate a high level of technique, strength and strategic thinking, making Uzbekistan proud of their sporting achievements in judo.

Football and futsal

Football is one of the most popular sports in Uzbekistan. The country has a national football team that takes part in various international competitions, as well as many clubs playing in national and international leagues. Futsal is also very popular among the population. This fast and dynamic sport is played in many local and national tournaments, attracting both professional athletes and amateurs of the game. Futsal develops coordination, reaction and teamwork skills and is an excellent alternative for those who want to play soccer but prefer to play in smaller teams. There are many football events organized in Uzbekistan, including championships, cups and tournaments at various levels. This helps to popularize football and futsal among young people and the population in general, and also contributes to the development of talented football players and support for their careers.

Futsal

Futsal, a variant of futsal, is an important and popular sport in Uzbekistan. It attracts many sportsmen and sportswomen who practice this sport and represent the country in various competitions. Uzbekistan has strong national futsal teams that achieve success both at the national and international level. Futsal is very popular among the population of Uzbekistan. Local leagues and tournaments are organized regularly, attracting both professionals and amateurs of this dynamic and exciting sport. Futsal develops agility, reaction speed and team spirit in players, and also offers spectators exciting matches and emotional moments. Uzbekistan is actively developing futsal and providing support to sportsmen and women of this sport. The Uzbekistan futsal team demonstrates a high level of play and is deservedly considered one of the strongest teams in the region.

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Uzbek futsal players regularly achieve significant success in Asian and international competitions, drawing attention to the skill and talent of Uzbek sportsmen and women.

Boxing

Boxing is one of the most popular sports in Uzbekistan. This sport is of great importance and occupies a special place in the hearts of the Uzbek people. Boxing sportsmen and women achieve outstanding success at the national and international levels, which brings pride and joy to Uzbekistan. The government of Uzbekistan actively supports and develops boxing, providing athletes with all the necessary conditions and resources for training and participation in competitions. Many boxers and boxers from Uzbekistan have become famous and respected figures in world boxing, showing a high level of professionalism and skill. Boxing is not only a sport, but also a path to self-improvement and discipline. It develops strength, endurance and courage, and also develops moral values such as respect for one's opponent and discipline. Thanks to boxing, Uzbekistan is enriched with talented and successful athletes who are the pride of the country and the embodiment of its sports spirit.

Tennis

Tennis is one of the developing sports in Uzbekistan. The country is proud of many talented sportsmen and women who achieve high results in national and international competitions. The development of tennis is actively supported by the government, which provides the necessary infrastructure and funding for athletes to train and participate in tournaments. Uzbekistan hosts many tennis competitions at various levels - from national tournaments to international championships. Tennis clubs and academies are developing throughout the country, providing opportunities for young talent to develop and improve their skills. Tennis is also very popular among the population of Uzbekistan. Many people take up tennis as a hobby, playing on public courts and clubs. This sport promotes physical development, improves coordination and concentration abilities.

Chess

Chess is a popular intellectual game in Uzbekistan. The country hosts many chess tournaments and competitions, attracting both professionals and amateurs of the game. Chess is widely cultivated in educational institutions and contributes to the development of mental abilities and logical thinking among the population. Uzbekistan is proud of its chess masters who achieve high results and represent the country at international competitions. Chess also plays an important role in youth development. The country has created conditions for young talents to develop their skills and achieve success in this exciting game. Due to its popularity and accessibility, chess is not only a sport, but also a tool for developing mental abilities and increasing general erudition. Playing chess helps improve concentration, analytical and strategic skills, develop logic and rational decision making. It also promotes the development of patience, perseverance and the ability to predict.

Conclusion

National sports play an important role in the culture and sports of Uzbekistan. They have a rich history and are closely connected with national traditions. The development and popularization of these sports helps strengthen the spiritual and physical health of the nation and brings joy and satisfaction to athletes and spectators. The physical activity offered by national sports has a positive effect on public health. Participation in sports activities helps maintain physical fitness, develop strength and endurance. The sports traditions of Uzbekistan are passed down from generation to generation and are an inextricable part of the national culture. National sports not only represent the country on the international stage, but also serve as a symbol of national pride and unity.

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https://proximusjournal.com/index.php/PJSSPE
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ABU-ALI IBN SINA ON THE BENEFIT OF PHYSICAL EXERCISE IN THE LIFE OF SOCIETY

Zarofat Igamberdiyevna Yuldasheva
Candidate of Medical Sciences,
Angren University, Faculty of Medicine
Teacher of the Department of General Medicine
Mahfuza Igamberdiyevna Rahmatullayeva
Angren University
Faculty of treatment, Senior teacher.

Abstract: The article is devoted to the contribution of the famous philosopher, thinker, physician and naturalist Abu Ali Hussein ibn Abdullah ibn Sina (Europeanized name Avicenna) to the theory of physical education. The article, based on the analysis of the fundamental work "Canon of Medical Science", shows Ibn Sina's approach to the classification of physical exercises, which act in his theoretical legacy as a means of diagnosing a person's physical condition, a means of developing his physical strength, preserving and improving health, as well as a means of self-regulation while satisfying human vital needs. The authors of the article propose a system of criteria for the classification of physical exercises, highlighted by Ibn Sina. According to the criterion "the amount of physical activity", a block is allocated, which includes "small and large", "strong and weak", "sluggish" physical exercises. According to the criterion "development of certain physical qualities", "fast", "smooth" and "light" physical exercises are distinguished, which correspond to the modern group of speed and strength exercises. Anatomically, there are "chest exercises", "exercises for the digestive organs", "exercises of vision" and "exercises of hearing", "exercises for teeth and ears". The characteristic of the types of physical activity, which is the essence of each typological group of physical exercises, is given. The article presents the requirements that Ibn Sina puts forward for the organization of physical exercises, their intensity, time, age and physical condition of a person. It is concluded that the classification of Ibn Sina's system of physical exercises is internally interfaced with modern classifications of physical exercises, as well as with his own classification and nomenclature of diseases, the description of each of which is accompanied by a recommendation on their use or refusal to exercise.
Keywords: Arabic culture; physical culture; Ibn Sina; physical exercises; classification; classification criterion; human physical potential; physical health

Introduction

The interest in the problems related to the study of the history and current state of science and culture of Asian countries reflects the current trends in the development of cooperation in the Asian civilizational frontier. In this context, attention to the fundamentally significant heritage of world-famous representatives is natural and understandable

The cultural heritage of the greatest thinker of the Middle Ages, naturalist, physician, poet and statesman Abu Ali Hussein ibn Abdullah ibn Sina has always attracted the attention of domestic and foreign scientists. The object of special attention was the philosophical, socio-political, medical, philological, scientific, pedagogical views of the scientist. Ibn Sina's works were studied at the dissertation level. Dissertation research is devoted to the analysis of philosophical, logical, pedagogical and natural science views of the thinker. A special place in this series is occupied by studies devoted to the evaluation of Ibn Sina's works in the countries of the Arab

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East and France, which indicates his influence on the formation and development of knowledge within the framework of various scientific approaches and traditions.

In the European tradition, the name of Ibn Sina was Latinized, he is known in the West as Avicenna (Avicenna)1. The European scientific tradition honors Ibn Sina as a skilled physician, whose medical knowledge was ahead of time and left a significant mark on world medical practice. Research shows that Ibn Sina's medical concept is a kind of projection of his philosophical views. The issues of the relationship between soul and body, the solution of which to a certain extent was unconventional for the system of religious beliefs of Islam, were fundamental and became the reason for accusing the scientist of heresy. The meaning of the discrepancies was Ibn Sina's assumption that the intellectual life of a person is not in the soul, but in the brain of a person who directs the body.

The problems of the physical condition of a person are reflected in the main work of Ibn Sina – "The Canon of Medical Science" (المانون في الطب), written presumably in 1023. It existed for a long time in the form of numerous Arabic manuscripts and became one of the first books published in mass circulation after the invention of printing. The printed version, published in 1473 in Italy (Milan), became widely known and widespread. Ibn Sina's work has long remained a medical textbook for European and Asian universities.

This medical book contains descriptions of various conditions of the human body and the classification of diseases, a description of ways to treat them with medicinal and non-medicinal products, as well as issues of hygiene and disease prevention. Among non-medicinal products, it is necessary to highlight the practice of using physical exercises. Almost every description of diseases and methods of their treatment contains an author's reference to physical exercise as a factor that can have a positive or negative effect on the human body under certain conditions. Ibn Sina recommends that nurses exercise to strengthen their health, and – in a limited version – patients to improve their health. The ability to perform physical exercise is a marker of health and/or illness.

The problem of analyzing the effects of physical exercise arises in the context of Ibn Sina's consideration of the problems of adults who, under all circumstances of their lives, must comply with the regime. The characteristic of physical exercises comes down, first of all, to their definition as "arbitrary movement leading to continuous deep breathing." "A person who exercises moderately and in a timely manner," Ibn Sina asserts, "does not need any treatment aimed at eliminating diseases caused by spoiled juices, as well as diseases caused by nature and dependent on previous [diseases]". Physical exercises are considered as a factor contributing to the cleansing of the body from physiological excesses and raising the overall tone of the human body.

Ibn Sina's work distinguishes between physical activity, which is associated, among other things, with physical work, and pure physical exercises, which a person consciously engages in to benefit his body. The scientist gives a typology of physical exercises, which are classified on various grounds. This classification is historically determined, but not fully consistent with modern approaches to the definition of classification features that have developed in the modern theory of physical education.

According to the criterion "the amount of physiological load", "small and large", "strong and weak", "sluggish" physical exercises are distinguished. This group of physical exercises corresponds to a certain extent to the modern classification, in which the criterion for distinguishing this group of physical exercises is the power of the work performed, and the nomination includes "high-power exercises", "maximum power exercises", "moderate power exercises", "sub-maximum power exercises", etc.

Ibn Sina points to physical exercises that fall under the modern criterion of preferential focus on the development of certain physical qualities. These are "agile exercises" consisting of sharp movements that promote the development of dexterity. There are "fast", "smooth and easy" physical exercises, which, with a certain degree of conditionality, correspond to a group of speed-strength physical exercises.

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Ibn Sina's work indicates the need to distinguish physical exercises based on anatomical features. He believes that exercises aimed at developing the muscles of the arms and legs are well known in the practice of training warriors and in competitive practice, and therefore do not need a special description. To preserve and strengthen health, "exercises of the chest and respiratory organs", "exercises for the digestive organs", "exercises of vision", "exercises of hearing", "exercises for teeth and ears" are highlighted.

Ibn Sina's concept of classification of physical exercises contains a description of those types of physical activity that are included in each of the identified typological groups. Thus, the group of "fast exercises" includes a number of types of physical exercises used for military training, namely: walking (mainly at a fast pace, which is necessary to move around the battlefield), alternating jumps on one leg, archery, javelin throwing, sword fencing, spear fencing, jumping up in order to to hang on a crossbar or branch, riding at speed (including reining in a horse), fist fighting, sharp flapping of the arms at the initial toe stand, tug of war, jumping sideways and backwards, changing places between two partners.

Ibn Sina describes an original "exercise with two large needles", which, according to his classification, belongs to the category of "fast exercises". It consists in the following: "a person stands in a certain place and sticks two large needles into the ground on both sides at a distance of a fathom from each other. Then he turns to the needle on the right side and transfers it to the left side, and transfers the needle from the left side to the right, and tries to do all this as quickly as possible."

"Fast" physical exercises necessarily alternate with "light exercises" or a fairly long rest.

"Smooth and easy exercises" include swinging on swings and in cradles in standing, sitting and lying positions, as well as riding on small boats and less prone to rolling larger vessels. These exercises are aimed at strengthening (developing) the vestibular apparatus. This type of exercise is suitable for patients who have difficulty moving, for those who find it difficult to stand and sit, for those who have lost strength, for those suffering from chest diseases and head diseases, including forgetfulness and /or memory loss. The benefit of "light exercises" is seen in the fact that with a slight rocking, a person calms down and can fall asleep, which is good for his health. This position is fully confirmed by modern science.

According to Ibn Sina, various types of "light exercises" have a healing effect depending on their intensity and orientation. Thus, the benefit of these types of exercises is seen by him in the fact that in the human body "bad juices are prepared for removal" [20]. "At the same time, they pump strongly when [juices] are strong, and weakly when [juices] are weak. Riding in carts also has this effect, but more strongly. Riding in a cart, sitting backwards, is of great benefit for weak eyesight and blurred vision. If [the patient] feels sick from rocking, and then he calms down, then this is good for the stomach. Sailing on ships on the high seas has a stronger effect on the eradication of these diseases due to the fact that the soul [of the patient] experiences joy and sadness."

Special types of exercises are placed between "light" and "strong" exercises, which Ibn Sina characterizes as exercises of intermediate intensity of physiological load. This includes camel riding and quiet horse riding, riding in stoles and carts.

"Strong exercises" include such types of physical activity as simulated combat with one's own shadow, lifting stones, playing chowgan-polo2 with a large and small ball, baiting and chasing an animal on a hunt, exercises on reining in a horse, wrestling, playing ball.

Of particular interest is Ibn Sina's position regarding physical exercises that help restore the health of individual organs. So, from the "exercise of vision", the doctor recommends performing by gazing intently at small objects and (less often) looking at distant hills. It is proposed to exercise hearing by listening to the sound of blurred sounds. The throat is cured by exercises aimed at gradually raising the voice, as well as through exercises for holding your breath, sharply inhaling and exhaling air.

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Ibn Sina formulates a number of recommendations regarding the time and intensity of physical exercise. Such provisions include the requirement to take into account the physical condition of a person – "for a weak person, physical exercises should be easier, and for a strong person – strong", exercises should be performed on a moderately full stomach, preferably after a warming massage, in the morning or closer to lunch. Physical exercise should be stopped if a person is overtired. Ibn Sina pointed out the need to take into account age and individual characteristics when doing physical exercises, declaring undesirable intensive exercises for dizziness and falling, as well as a sharp increase in the volume of exercises without prior preparation in the form of walking and running. These positions can be considered quite acceptable and not objectionable.

Conclusion

An analysis of the content of Ibn Sina's work "The Canon of Medical Science" shows that a certain type of physical exercise of established intensity is an effective non-medicinal remedy recommended (or definitely not recommended) in the treatment of the disease.

The classification of Ibn Sina's system of physical exercises is internally linked to modern classifications of physical exercises, as well as to his own classification and nomenclature of diseases, the description of each of which is accompanied by a recommendation on their use or refusal to exercise. For those engaged in physical exercises, Ibn Sina recommended the use of a bath that helps restore blood circulation in internal organs, as well as bathing in moderately cold water after exercise (in combination with massage), massage as the final part of physical exercises, adherence to a diet before and after exercise, including giving up fish after heavy physical exercises exercises that give high loads.

In general, it can be noted that physical exercises act in the legacy of Ibn Sina as a means of diagnosing the patient's condition (the one who is unable to perform the usual exercise is very ill), means of developing physical strength, preserving and improving health, means of self-regulation while satisfying vital needs. Being a deep thinker, an encyclopediically educated man, Abu Ali Hussein ibn Abdullah ibn Sina was far ahead of his time. His humanitarian and natural science heritage is a source that encourages our contemporaries to reflect on man, his capabilities, spiritual and physical potential. It retains its meaning at the present time.

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ISSN (E): 2942-9943

TOOLS, METHODS AND PRINCIPLES USED IN TEACHING THE OF JUMPING TECHNIQUE

Azizjon Yakubjonovich Shadiyev
Chirchik State Pedagogical University
Associate Professor of the "Physical Culture Theory" Department

Abstract: This article contains information aimed at studying the effectiveness of outdoor games in educating students of jumping ability and speed-strength qualities directly related to the formation of jumping skills at the initial stage of training in the support jump.
Kalit so‘zlar: tezkorlik, kuch, texnik-taktik chidamkorlik, chaqqonlik, egiluvchanlik, reaksiya, jimoniy mashqlar.
Key words: speed, strength, technical and tactical endurance, agility, flexibility, reaction, exercise.

TAYANIB SAKRASH TEXNIKASIGA O‘RGATISHDA QO‘LLANILADIGAN VOSITALAR, USULLAR VA TAMOYILLAR

Azizjon Yokubjonovich Shadiyev
Chirchiq davlat pedagogika universiteti
“Jismoniy madaniyat nazariyasi” kafedrasi dotsenti

Annotatsiya: Ushbu maqola o‘quvchilarning dastlabki tayanib sakrashni o‘rganish bosqichida sakrash mahoratining shakllanishiga bevosita aloqadorbo‘lgan sakrovchanlik va tezkor kuch sifatlarini o‘stirishda harakatli o‘yinlar samaradorligini o‘rganishga qaratilgan ma’lumotlardan iborat.
Аннотация: Данная статья содержит информацию, направленную на изучение эффективности подвижных игр в воспитании у учащихся прыгучести и скоростно-силовых качеств, непосредственно связанных с формированием прыжковых навыков на начальном этапе обучения опорному прыжку.
Ключевые слова: быстрота, сила, технико-тактическая выносливость, ловкость, гибкость, реакция, упражнение.

In modern sports practice and in the process of schools, achieving high levels is related to the ability of students to maintain high-quality and effective work ability for a long time.
The duration of competitions in various sports is determined by the rules of international competitions. During these competitions, the longer an athlete is able to maintain his work ability in terms of quality and efficiency or has the "strength" to increase it, the more success he will inevitably receive. In other words, maintaining the level of quality and efficiency of work for a longer or shorter period of time, general and special endurance types of qualities (speed, strength, quick-strength endurance, jump endurance, "technical-tactical endurance", etc.)) is determined by how developed it is.
It is known that when it comes to work ability, especially when it comes to its quality and efficiency, the ultimate essence and "core" of the matter goes back to the formed and unformed of other physical qualities. That is, general and special endurance suitable for an effective result will embody the qualities of strength, quickness, agility, and flexibility. The interrelationship of these qualities and their high-level integrated result

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determine the specific fate of sportsmanship.

One of the most important factors is the formation of jumping elements based on a planned physical style and preparation. However, in sports practice, there are often cases where planned physical exercises do not give the expected result in the development of appropriate movement qualities. One of the main reasons for this is that the volume and intensity of this or that physical exercise used in training and the level of influence of these indicators on the body of the participants (the reaction of the body to the load) are not objectively evaluated. Therefore, taking into account the compatibility of the physical exercise (social exercises) used in the educational process with the functional capabilities of the body of the participants creates opportunities for planning this exercise.

When teaching movement, special attention is paid to two interrelated aspects of movement function:

- teaching and improving movement skills;
- education of physical qualities in accordance with learned movement characteristics.

V.N. According to Platonov (1986), the concept of general physical fitness means the level of comprehensive (harmonious) development of the movement qualities of the athlete. Approaching the issue in this way is appropriate from the point of view of forming the health of an ordinary person (including an athlete). This kind of practice and the training process based on it is not likely to reduce the effectiveness of high competition results. Because each type of sport has its own and suitable characteristics, if in one type of sport the quality of quickness and strength prevails, in another type of sport the quality of endurance plays a leading role, or in a third type of sport the quality of flexibility is of primary importance. will have However, it does not follow from the mentioned opinion that a certain physical quality is very necessary for a certain type of sport, and another is not important. On the contrary, each quality has a more or less important "share" in a specific sports situation. The above-mentioned ideas and considerations are especially evident in gymnastics.

First of all, it was proved that building the qualities of strength and agility in a mutually compatible way has a positive effect on the physical fitness of students.

When it comes to physical training and, in particular, the importance of forming movement qualities (speed, strength, endurance, agility, flexibility, agility) in training students, in this regard, special emphasis should be placed on the qualities of quick strength and agility. is appropriate.

Quick-strength qualities are a crucial resource in every sport. For example, the quality of quick power to perform an attack shot over the net in volleyball is a factor that ensures the success of this skill; and in wrestling, this quality helps to use attack or counter-attack methods with great force in a short time, and in gymnastics, the quick-power quality ensures the successful transition of the jump. In fact, according to the results of observation, most of the gymnasts who won in the World, Olympic, European, Asian and other international gymnastics competitions have highly developed quick strength skills.

In gymnastics, the quality of jumping is also one of the main sources leading to victory. In this regard, the well-known researcher - scientist Yu. V. Verkhoshansky (1985) provides very important information that attracts attention. During training, it is this quality that shows its leadership in decisive situations. At the same time, it is not necessary to prove that the performance of technical skills with high efficiency during long-term training is primarily directly related to the quality of special endurance. According to the observations of Yu.V. Verkhoshansky, the technical skills of the participants of the World Volleyball Championship during the competition were significantly reduced in the 3rd round of the competition. This situation draws attention to the fact that the special endurance of these volleyball players is not formed at a high level. So, it can be seen that the quality of special skill occupies a special place in maintaining the effect of technical skill for a long time during the lesson.

In the development of special fitness, it is necessary to perform special technical exercises for a long time,

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even in the presence of fatigue complications. General endurance is formed on the basis of chronic performance of high-volume exercises (long-distance running, swimming, cycling, etc.) at moderate intensity. The quality of flexibility is one of the necessary factors in training gymnasts and forming their technical skills. A gymnast with highly developed abilities will be able to skillfully perform "most", spins, twists and similar technical skills. Flexibility is formed gradually, due to long-term training. If flexibility exercises are stopped for a while, this quality can be dramatically lost or reduced.

Many methods used in gymnastics develop flexibility. However, this alone does not allow the full development of this quality. To effectively improve this quality, it is necessary to gradually and regularly use special exercises such as stretching, bending, spreading, squeezing, and twisting of muscles, tendons, and joints.

It is desirable to form flexibility from a young age. At the same time, the development of this quality requires caution. Violent and sharply applied exercises can damage muscles, tendons, joints, and even cause serious injury (V.N. Platonov). In teaching children to jump, it is also important to develop the qualities of agility and strength. It should be noted that the harmonious development of all physical qualities during the lesson is the guarantee of training a skilled gymnast.

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

BASIC METHODOLOGICAL PRINCIPLES OF TEACHING GYMNASTIC CLASSES TO CHILDREN

Kamola Khakimdjanova
Teacher of TSPU, Physical education and sport
Dilfuza Achilova
Student of second year of TSPU, Physical education and sport

Abstract: In this article, one of the main stages of teaching gymnastics, which is the queen of sports, is about teaching methods, training procedures and their proper organization during the school period, which is one of the main periods. data are cited.

Keywords: Gymnastics, training, sports field, equipment, rehabilitation, method, appropriation

Introduction

Gymnastics classes are usually held in specially equipped gymnasiums or on open fields. Gymnastics classes are planned to be held in the following halls. For public schools and online schools: Halls must have additional rooms for equipment, instructors' rooms, changing rooms (for men and women), as well as showers and toilets. They should be in convenient places. For higher educational institutions.

Gymnasiums should have special equipment and inventory for practicing the main sports and other types of gymnastics. The amount of equipment is determined by the number of people working in the hall. It takes into account the content of the training, the category of participants and the approximate number of small groups. Hygienic requirements for the use of halls also apply. The hall and its auxiliary rooms must be constantly swept and cleaned.

Usually, the temperature in the gymnasium is maintained at 18-20 degrees. Air humidity is around 50-60%. The level of light falling from the windows should not be less than 1.5 parts of the floor level. The dressing rooms are next to the hall. They also need to be cleaned regularly. Every day, after each training, the floor is wiped with a rag and once in 1-2 weeks it is thoroughly collected.

The gymnastic ladder is used for URM and climbing, its height is 320 cm, the distance between the posts is 100 cm.

Gymnastics is used to perform ladder climbing and climbing exercises. According to it, 5 m is 48 cm wide. The diameter of the stairs is 3.5 cm, the distance between the rails is 25 cm.

The gymnastic bench is used for group exercises such as URM exercises, balancing exercises, push-ups, etc., as well as for exercisers to relax. Its length is 4 m, width is 24 cm, height is 30 cm.

The climbing rope is hung on the ceiling beams or on special elbows. Its thickness should be 4-6 m, and its length should be comfortable to hold by hand.

Hoops are usually hung in school halls, sometimes on ceiling beams, in high halls.

Their hanging place is 5.5 m above the floor. The people themselves are 2.5 m above the floor, and the distance between two people is 50 cm.

Mine to shake feet. The height is 160 cm, the width is 36 cm, the handles are symmetrically installed at intervals of 40-45 cm, the height of the handles is 12 cm from the surface of the mine, and 120 cm from the floor.

Mine (horse) to jump. Its dimensions will be similar to a mine with a handle. The height of the skirt from the

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floor is 110-150 cm, for women it is 110 cm.
Kozyol. It is placed transversely or horizontally at a height of 100 cm to 160 cm. Height 60 cm, thickness 40 cm.
Bruces. A) men's parallel bars are 350 cm long, installed at a height of 160-170 cm from the floor, and the interval is 42-62 cm.
b) women's blouses (of different heights) lower wood 130-150 cm, upper wood 190-249 cm high; the distance between the logs is 43-55 cm.
The uprights, reinforced with turnbuckles, consist of a 28 mm diameter polished iron rod, fixed horizontally. Depending on the content of the training, the height of the barbell can be set at different heights from 120 cm to 240 cm.
Before training, it is absolutely necessary to clean the places where each piece of equipment will be locked. the size of the free training ground (carpet) is 12x12, and it has a rotating white border. Jumping bridge is used for exercises in singles and bars. Its height is 12 cm, width 60 cm, height 120 cm.
Gymnastics is used to perform individual balance exercises. Its length is 5 m, thickness (from bottom to top) is 16 cm, the width of the upper and lower surfaces is 10 cm. The surface should be flat and non-slip. It is 120 cm high from the floor. For initial training, a pastrad is used 50 cm high or a low singlet placed on the floor at all.
The development of sports equipment and the teaching of first aid also contribute to the growth of general skills.
Employees must comply with the following rules.
1. The equipment installers are instructed to carefully prepare for the training session and then collect it, transport the equipment in special carts so as not to damage the floor.
2. Careful use of magnesia, after the end of the training, the participants clean the iron rod of the bar, the wood of the bars, the rings, the handles of the mine from magnesium, and wipe the beds with a cloth.
3. Storage of equipment and injectors in special rooms or other places.
4. They should sweep the hall every day, wash the floor, walls, windows, shelves, doors, etc. with hot water, and regularly clean the soft surfaces (acrobatic carpet or skirt, free exercise polo, etc.) with pilesos.
5. During breaks between classes, they must wipe the floor with a wet cloth and ventilate the hall.
When entering the hall:
a) walking in the hall only in a gym suit and slippers.
b) to clearly follow the teacher's instructions during training, to help his friends;
c) learn safety rules, self-protection methods;
d) it is necessary to hang a rule reminding people to ask permission only from the student when entering and leaving the hall.
In order for the educational process to be effective, the equipment must be placed in compliance with safety regulations. Study units (small groups) should be placed in such a way that they can quickly pass from one type of training to another, but not interfere with others.
The form, dimensions, elasticity and location of the points of attachment to the floor of the gymnastic equipment intended for the competition must be in accordance with the norms established by the rules: even if the equipment used in mass competitions in secondary schools and lower teams is used ladi, but they must be solid without damage.
The requirements of international standards have been adopted for the main competitions. Equipment for small competitions can be customized according to requirements.

- **Conditions for mastering gymnastic exercises.** The first condition. The first condition for the

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ISSN (E): 2942-9943

successful organization of training in gymnastics is to determine the level of physical fitness of students. The student's capabilities are evaluated based on the following indicators:

• readiness to master the exercises, the size and expression of the exercises to be mastered, some difficulties in learning movement, the presence of the student's movement experience similar to that of new exercises;
• physical fitness (the level of maturity of decisive qualities in learning a new technical movement);
• the level of development of mental qualities (students' courage, determination, resistance to long-term nervous tension).

The nature of assessment of the student's ability to learn exercises depends on what exercises he is learning at the time. Gymnastic exercises are extremely diverse, so determining the capabilities of a student may vary in each specific case when a new movement is being learned.

The second condition is to create a training program based on the analysis of the movement structure and knowledge of the student's personal characteristics. The training program is written in the form of an algorithmic task, a drawing or a network program. As the technique of performing exercises becomes more complex, the effectiveness of the training program increases.

The third condition is skillful management of the process of mastering a set of exercises. The teacher does this based on the analysis of the student's activity and the selection of commands and control tasks that clarify it.

The fourth condition is the availability of appropriate conditions and training tools for effective and correct performance of the exercises. This includes the following: training place (classroom, hall, playgrounds), main and auxiliary equipment, methodological teaching tools (tables, pictures, film-videos, forms of the human body, educational techniques and methods methodological plans), technical equipment includes film, photo and video cameras, measuring devices and goniometers, dynamometers and other instruments, tape recorders, VCRs, dictaphones.

Didactic principles of teaching. The didactic principles of teaching in the organization of the educational process in gymnastics are the main activity guide.

The principle of awareness and activity. Gymnastic exercises place great demands on athletes' physical movement and willpower. The principle of consciousness and activity in the process of mastering new exercises requires students, first of all, to learn to understand the movement, to be interested in the task and to cultivate a creative approach.

In order for them to consciously learn movement skills in the process of studying, it is necessary to teach the participants the following:

• evaluation of the results of one's activity;
• describe movement technique using different (oral, drawing, written repetition) methods;
• overcome various difficulties associated with mastering a new movement;
• keeping a daily notebook and making plans for mastering exercises;
• to help the teacher organize the training and help his friends to learn the movement.

The principle of demonstrability. In order to make teaching demonstrative, the trainer uses the following tools and methods:

• demonstrate the perfect performance of the movement, show film and photo materials, pictures, tables and sample models;
• to verbally describe the details of the technique of some movement tasks and compare them with other movements;
• use of additional tools (patterns in phase, vocal accompaniment to movements, slow lifting and hand touching);
• to show the technique of the exercise or its elements being studied on exercise equipment, human body

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samples, etc.;
• creating a special, attentive feeling of movement as a result of stopping and showing individual situations, imitating, performing with the help of a coach and other facilitated actions.
• ***Facilitation principles require that trainees be given tasks that match their strengths. Otherwise, students will not be interested in classes. However, the principle of ease does not completely negate the need to train athletes to overcome difficulties.***
• ***The teacher should continuously study in depth what the students are capable of, their possibilities of mastering specific exercises. For example, in order to perform a large rotation in solo, the student should know that it is necessary to be able to perform several other exercises, to have enough strength in his hands, and to have developed many physical qualities, such as courage and determination. The presence of such qualities in a student is a measure that shows that this exercise is easy for him.***
• ***The principle of ease is closely related to the rules of didactics from known to unknown, from easy to difficult, from simple to complex.***
• ***The principles of permanence are as follows:***
• ***• that there is a certain consistency in studying the process of action;***
• ***• to regularly improve movement techniques and learn new exercises to develop the ability to solve various movement tasks;***
• ***• implies alternating work and rest during the teaching process in order not to extinguish the diligence and activity of students.***
Teaching methods. By teaching methods, it is necessary to understand the choice of specific ways to solve the tasks. Different teaching methods can be divided into groups. First group teaching methods:
• the oral method is one of the universal methods that allows students to control the teaching of new exercises during the lesson. In this case, the use of gymnastics terms is of particular importance, because with the help of terms, it is possible to make the teacher's impact on students clear and concise;
• the method of conveying information about movement technique, performing exercises by the demonstrator, showing visual aids, audio and video materials, giving conditional signs, some parts of the movement, the way to perform the elements of movement technique by the student is represented by
These training methods are mainly aimed at creating and defining the idea of the basics of exercise techniques and can be used throughout the training process.
• The second group of teaching methods:
• • integral training methods, it implies performing the movement being studied as a whole. In this case, easing the conditions for performing exercises, using additional means of support and protection, lowering the height of the equipment, performing the movement on the trainer, simplifying the initial or final position (for example, performing a low squat with the help of a trainer) may be at the expense of;
• auxiliary exercise method (one of the similar types of holistic exercise method), which is similar to the main exercise in terms of content, but at the same time is an independent exercise and involves the complete execution of a previously learned movement (for example, the body in a solo standing up on one leg and leaning on it for writing serves as an auxiliary exercise);
• the divided training method consists in separating the entire movement technique into some parts and pieces and after mastering each of them, performing it again as a whole. This artificial division of the exercise into parts is done in order to facilitate the conditions for learning the main activity;
• the method of solving specific movement tasks is a variant of the divided training method, which is represented by the selection of training tasks with specific elements of the movement technique (for example, now beginner athletes jump to the ground to learn to cross the legs and lean they learn landing, running,

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landing and then "bridge" one after the other).

- These teaching methods allow students to get information about the exercise and learn the basics of the movement technique being studied. In addition, they help to get an idea of the composition of the movement, as well as to correct any mistakes that may occur.
- The third group: the standard training method, this method is represented by independent performance of the movement in order to strengthen movement skills under training conditions;
- the changing training method is associated with the following difficult conditions: misleading signals (noise, extraneous sounds, etc.), changes in the surrounding conditions (unusual placement of equipment, changes in lighting, etc.), being given an unexpected instruction to perform a certain task, changing the place of the exercise in the combination, performing the exercise when tired or overexcited;
- the game and competition method of teaching implies that students compete with each other or feel responsible for achieving a certain result from the action. These training methods provide an opportunity to achieve stability of movement skills.
- The fourth group consists of programming methods that make it possible to choose an effective form of organizing the correct educational process of teaching a new movement. Algorithmization of the training process is one of the advanced types of programming.
- Algorithmic tasks involve dividing the educational material into parts and teaching the students one after the other in a strictly specific order. The right to move to the second part is given only after the first part of the educational tasks is completed. The following requirements are set for the preparation of assignments:
- assignments or parts of the educational material should clearly show the expression of each activity, should not be left to chance when choosing them, and should be understandable to those for whom it is intended;
- tasks of algorithmic type can be created both for one activity and for repetition of activities similar in terms of content;
- all learning tasks should be interrelated and consistent in terms of increasing complexity.

According to the assignment, the order of studying parts of the educational material is determined depending on the relationship between them. The repetition of each task of an algorithmic task is aimed at solving a specific goal.

For example, in order to successfully perform the learned movement activity, it is necessary to have exercises that develop the necessary physical qualities, in the first repetition of educational tasks. The second repetition of educational tasks should include exercises designed to master the initial and final states of the beginning and end of the movement activity being studied.

The first and second repetition of educational tasks can be mastered at the same time or at different times. The third iteration of learning tasks involves the implementation of basic actions. For example, in order to master the forward lunge on double poles, the student must be able to perform lunges and forward lunges to the required height.

The fourth repetition includes learning tasks related to the assessment of performance in some parts depending on space, time, and muscle tension. The amount of differentiation and the level of accuracy depends on the complexity of the exercise being studied.

The fifth repetition of training tasks includes auxiliary exercises. After completing the repetitions of the educational tasks, the movement is studied as a whole in a simplified environment (on a trainer, with the help of a teacher, using technical tools, etc.). Active control of the learning process is created by monitoring how well tasks are performed while learning each learning task.

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Conclusion

When it is impossible to use the holistic teaching method or it is ineffective, it is necessary to use an algorithmic task. This type of task is usually used to learn technically complex exercises.

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

CLUSTER-MODULAR METHOD OF IMPROVEMENT IN THE STRUCTURE OF A PHYSICAL EDUCATION LESSON FOR STUDENTS WITH DIFFERENT LEVELS OF PHYSICAL FITNESS

Ravshanjon Mamatkulov
Senior lecturer at the Department of Physical Culture and Sports,
Chirchik State Pedagogical University. Uzbekistan.

Abstract: This article discusses the use of new technologies in physical education in higher educational institutions. The issues of applying the cluster-modular method in groups of students with different levels of physical fitness are considered.
Key words: Physical education, physical fitness, cluster analysis, cluster, cluster-module method, different levels, physical culture, physical condition, sample population, educational process.

КЛАСТЕРНОЕ-МОДУЛЬНЫЙ МЕТОД СОВЕРШЕНСТВОВАНИЯ В СТРУКТУРЕ УРОКА ПО ФИЗИЧЕСКОЙ КУЛЬТУРЕ ДЛЯ СТУДЕНТОВ С РАЗЛИЧНЫМ УРОВНЕМ ФИЗИЧЕСКОЙ ПОДГОТОВЛЕННОСТИ

Равшанжон Маматкулов
Старший преподаватель кафедры физической культуры и спорта Чирчикский государственный педагогический университет. Узбекистан.

Анотация: в данной статье рассматриваются вопросы применения новых технологий в физическом воспитании высших образовательных учреждениях. Рассматриваются вопросы применения кластерное-модульного метода в группах студентов с различным уровнем физической подготовленности.
Ключевые слова: физическое воспитание, физическая подготовленность, кластерный анализ, кластер, кластерное-модульный метод, различный уровень, физическая культура, физическое состояние, выборочная совокупность, образовательный процесс.

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https://proximusjournal.com/index.php/PJSSPE
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The relevance, timeliness, obviousness and even the necessity of modern clustering processes today are almost beyond doubt. It is curious that the actual scientific approach to clustering today has been relatively little developed and is rather fragmentarily reflected in the scientific literature; In addition, the term “cluster” has firmly entered the circle of not very clear, but clearly fashionable concepts, which, “clogging” the categorical scientific apparatus, often do not carry either semantic or, especially, practical significance. Meanwhile, the phenomenon of clustering was studied, although almost exclusively in the natural sciences, long before it became so fashionable. The etymology of the concept cluster (from the English Cluster, lit. - “bundle, swarm, accumulation”) is very controversial: the term, borrowed from the field of exact sciences, without having a purely economic nature, today is easily “rooted” in the humanitarian branches of scientific knowledge. Now this term is quite widely used in computer science and programming, in mathematics, physics, chemistry, economics, sociology, etc. We note, however, that there is not a single or even generally accepted understanding of a cluster and clustering as processes of the formation of social clusters in modern science, unfortunately, it didn't work out.. Taking into account the scope of the article, we will highlight the main characteristics, sociological and semantic indicators of the adopted cluster model.

A cluster cannot serve as a designation for an undeveloped system, including a social one, nor, even more so, as a designation for a single event or phenomenon. In this case, taking into account the classical dialectical models of Aristotle, W. Leibniz, G. Hegel, I. Kant, thinkers of the Vienna School and the positivist tradition in general, the concept of a cluster would be simply redundant in relation to the established categories of system and element; individual, special and general; norms and deviations, social dissipation, etc. The concept of a cluster, according to the authors, describes a specific state of a social community, including a description of not only this community itself, but also the processes of its formation, structuring and interaction with the social environment. For example, an emerging company of people who like to play volleyball on the beach on weekends contains, most often, a relatively small stable core with vaguely expressed situational leadership, as well as a noticeable “variable” composition.

According to the authors, up to the formation of a stable team itself, with almost constant composition and stable leadership, such a community can be called the simplest example of a social cluster. Thus, a cluster is a union of objects and subjects in which their specific and individual characteristics are equally powerful, that is, you want to be a member of a cluster no less than you want to “remain yourself,”to be lonely, and at the same time “tenacious” - competitive.

The cluster, therefore, does not express a discrete period of formation of the system, its genesis. Let us emphasize once again that a cluster does not describe every association of people, social fragments and groups. In our case, the cluster analysis procedure as a modern trend in improving the methods of health-improving and restorative nature is interpreted as a qualitatively special form of regulation of physical exercises, depending on the characteristics of the preparedness and physical development of those involved. In physical education, the cluster analysis procedure involves identifying groups of objects among the elements of the sample population. In this case, the units of analysis in a specific database can be judgments, statements based on survey data, features of physical fitness of those involved in particular, in borderline states between norm

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ISSN (E): 2942-9943

and pathology and initial pathological states, groups of external environmental factors in accordance with the achievements of physical development and preparedness.

Consequently, clusters can be formed from any components of the sample population, the composition of which, of course, depends on the specifics and scale of a particular sociological study. The use of the cluster analysis procedure in the author's logical research (especially in monitoring) has repeatedly shown that that clusters are unstable and easily changeable, like everything in the modern dynamic world. Let us note, finally, that the interpretation of clustering itself in the educational process, in particular in the process of physical education, as a process that describes not only the sequence of cluster formation, but also the very logic, dynamics and scale of clustering, is very complex, since we are talking specifically about segments of the educational process in conjunction with the characteristics of practiced criteria and standards of an individual's physical condition as indicators of physical fitness, health, and not about the fantasies of a sociologist who combines heterogeneous groups of data on arbitrary grounds. Currently, physical education teachers are little familiar with cluster analysis, since it is used more in sociology and economic disciplines and is still poorly adapted to the structure of physical education, but a rational combination of general profiling and selective health-improving areas of physical education in different age periods of ontogenesis and in different living conditions, provides modern ways and conditions for motivating physical activity, specifically oriented in the aspect of preserving and strengthening the health and physical fitness of student youth.

In general, the introduction of general didactic and specialized concepts and approaches into the theory and teaching methods, especially computerization and the expanded use of technical teaching aids, ensures that students master the theoretical and practical sections in a relatively short period of time, and the teacher quickly surveys the group and identifies insufficiently mastered material and thereby frees him from routine work.

All this indicates an effective didactic approach to teaching and monitoring knowledge using information technology. The computer is directly integrated into educational information technology and becomes such a desirable element of the educational system that in its absence a certain discomfort arises for both the student and the teacher. A feature of the use of information technologies in physical culture and sports is the organization of management of biological objects that are difficult to formalize. From this point of view, issues of objective-subjective relations between teacher and student are considered, taking into account their biological properties. Thus, for practical use in physical education, we can select accessible and informative indicators of physical condition that can be measured and assessed. These can be: somatometric, somatoscopic and physiometric indicators, physical fitness, physical activity, morbidity.

When choosing the measured signs of physical condition, it is necessary to take into account the ease of their measurement, methods of assessment and motivation of those involved. The use of the cluster-modular method for the development of individual health programs, the correct assessment of the functional and physical state is of great importance, as it allows not only to study the effect of physical exercise on the body, but also helps to diagnose a sometimes hidden disease, establish adaptability to physical activity, and determine it optimality, etc. The module can be presented as an educational element in the form of a standardized booklet consisting of the following components: - a precisely formulated educational goal;

– list of necessary equipment and materials;

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- list of related educational elements;
– the educational material itself in the form of a short, specific text, accompanied by detailed illustrations;
– practical exercises to practice motor skills;

Currently, there is an urgent question about the development in physical education of scientific foundations for systematization and analysis of new teaching technologies, which can solve a wide variety of problems: communication of knowledge, monitoring the progress of their assimilation, demonstration of illustrative material, and the development of physical fitness. Solovyova E. B. (1996) considers the most important problem in organizing the process of physical education to be the search for a teaching system that makes it possible to control in the process of educational activities the degree to which students assimilate the loads received during classes, which makes it possible to individualize the physical development of the individual.

Get to know your body, learn to stimulate its actions, be able to relieve neuromuscular tension and psycho-emotional fatigue. This has been confirmed in various studies, which have statistically proven a decrease in morbidity in students, an increase in physical performance and intellectual capabilities in those who purposefully (during all 4-5 years of study) used a system of rehabilitation measures. Modeling serves as a method of "indirect practical or theoretical operation of an object, in which it is not the object itself that interests us that is directly studied, but an auxiliary artificial or natural system ("quasi-object") is used, located in a certain objective correspondence with the cognizable object, capable of replacing it at certain stages of cognition and, during its study, ultimately providing information about the modeled object itself."

The activities of the teacher should be considered not only as providing each student with structured, targeted and motivated information about the conceptual and methodological content, methods of activity in the areas of using knowledge from various sections of physical education, but also as direct and indirect management by the teacher of the physical activity of students in mastering skills and abilities in accordance with the set educational goals. The use of computers in medicine and physical education provides great opportunities. To summarize, it should be noted that individualization of physical education lessons means the development of dynamic observation (monitoring) systems for physical education and the student's health status. This can be done with the help of modern information technologies, using the cluster-modular teaching method, which is practically not used in the physical education of students with poor health,

All of the above indicates the need to search for new forms of assessing the quality of knowledge and skills for students with serious health problems. However, despite the high potential of modern information technologies, they have not yet found wide application in the system of higher physical education. In connection with the above, the introduction of modern information technologies into the educational process of physical education of students with different levels of physical fitness seems very relevant today.

The cluster-modular method is a completely new modern trend in the methodology for developing coordination abilities, endurance and other physical and psychomotor abilities of students with different levels, in the general area of directed influence on their development.

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

METHODOLOGY FOR DEVELOPMENT OF SPECIAL PHYSICAL QUALITIES OF 10–12-YEAR-OLD VOLLEYBALL PLAYERS

Abdilhakim Jumaev
Senior Lecturer, Departments of "Methodology of Physical Culture"
Chirchik State Pedagogical University.

Annotation
This paper presents and experimentally tested the methodology for the development of special physical qualities of volleyball players aged 10-12 years, as well as the results obtained during the pedagogical experiment.it contains material reflecting new practice data and the results of scientific research that reveal the issues of physical fitness of volleyball athletes aged 10-12.
Key words: physical fitness, volleyball athletes, physical qualities, means and methods of training.

МЕТОДИКА РАЗВИТИЯ СПЕЦИАЛЬНЫХ ФИЗИЧЕСКИХ КАЧЕСТВ ВОЛЕЙБОЛИСТОВ 10-12ЛЕТ

Абдильхаким Жумаев
Старший преподаватель,
Кафедры "Методика физической культуры"
Чирчикский государственный педагогический университет.

АННОТАЦИЯ
В данной работе представлена и экспериментально апробирована методика развития специальных физических качеств волейболистов 10-12 лет а также результаты, полученные в ходе проведения педагогического эксперимента.Содержится материал, отражающий новые данные практики и результаты научных исследований, которые раскрывают вопросы физической подготовки спортсменов-волейболистов10-12 лет
Ключевые слова: физическая подготовка, спортсмены-волейболисты, физические качества, средства и методы тренировки.

Introduction

Relevance. The search for the most accessible means that increase physical activity, studying their influence and significance in modern society, and introducing them into everyday life is one of the areas of research by scientists and specialists in the field of physical culture and sports [1,2,3].

Volleyball is the most accessible, therefore, mass means of physical development and health promotion for the general population; volleyball is practiced in all regions of the country. This game is popular among people of different ages, from children to the elderly. The high level of sports results in modern volleyball

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requires athletes not only to have comprehensive physical training, but also to effectively master special physical qualities.

Special physical training is aimed at increasing functionality, developing special physical qualities necessary for playing volleyball, better and faster mastery of technical techniques.[5].

The main means of special physical training are competitive volleyball exercises, as well as special exercises that are similar in their motor structure and the nature of neuromuscular efforts to the movements of a specialized exercise. With the help of such exercises, technical techniques are improved and special physical qualities are developed.

The purpose of the work is to study the methodology for developing special physical qualities of volleyball players aged 10-12 years

Objectives of this work:

1. Analyze the state of the problem in the psychological and pedagogical literature: anatomical and physiological features of the development of children 10-12 years old.

2. Consider and select control exercises used to assess the special physical qualities of volleyball players aged 10-12 years.

3. Determine the level of special physical training of 10-12 year old volleyball players.

Object of study: educational and training process of volleyball players aged 10-12 years.

Subject of research: methodology for the development of special physical qualities of volleyball players aged 10-12 years.

The working hypothesis assumes that the method of developing physical qualities is effective in training volleyball players 10-12 years old.

Research methods: analysis of scientific and methodological literature, control tests, pedagogical experiment, methods of mathematical statistics (Student's t-test).

Characteristics of research methods

The following research methods were used in the work:

1. Theoretical analysis of scientific, methodological and special literature

2 Pedagogical observation

3.Testing

4. Pedagogical experiment;

5. Methods of mathematical statistics.

Theoretical analysis of scientific, methodological and specialized literature. Carried out throughout the study. The solution to these issues at the theoretical level is carried out by studying the literature on: theory and methodology of physical education and sports, education of physical qualities, age-related physiology.

Pedagogical observation is a systematic analysis and assessment of an individual method of organizing the educational process of volleyball players aged 10-12 years without the intervention of a researcher during this process. Such observation has a specific object of study, the presence of specific techniques for recording phenomena and facts (conventional notations for recordings, etc.) and, of course, verification of the observation results.

3. Testing. The experiment used control exercises to measure the level of technical training of young volleyball players aged 10-12 years.

1. Jump up

A bar with a centimeter scale is attached to the shield. On the platform under the shield, a square of 50\50 cm is drawn with chalk (from the projection of the shield into the depth of the platform). Previously, the height of the subject with his arm extended upward (Pcm) is measured on a scale marked in centimeters.

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Then the subject performs a standing jump, trying to make a mark on the bar as high as possible with the practiced fingers of his right and left hand. When performing a jump and landing, the subject must be within the drawn square. The height of the mark made by the test subject above the level of the platform is recorded (in cm), and the height of the jump is assessed by the best result over three attempts.

2. Standing long jump. (Lyakh. V.I)

The measurement is carried out according to generally accepted rules for calculating the length of a jump. For greater measurement accuracy, the heel edge of the sole is rubbed with chalk. The best result over two attempts is taken into account.

3. Shuttle run 3x10. (V.I. Lyakh)

The subject on the command "March!" runs as quickly as possible from one line to another, crossing them with his feet, and so on 3 times. The result is the task execution time with an accuracy of 0.1 s.

4. Pedagogical experiment. A pedagogical experiment creates an opportunity to reproduce the phenomena being studied. This is the main research method. Its value lies in the fact that the conditions under which this or that research is studied are created by the experimenter. Or they can, therefore, be repeated many times, partially or completely changed. This will allow for a deeper and more comprehensive understanding of the phenomenon being studied.

5. Methods of mathematical statistics. It is widely used for processing data obtained during research, their logical and mathematical analysis to obtain secondary results, i.e. factors and conclusions arising from the interpretation of processed primary information.

When processing the results obtained, the following indicators were calculated:

a. Indicators of the arithmetic mean X

In our work, we used a formula to calculate the arithmetic mean for each group separately

$$\overline{X} = \frac{\sum x_i}{n}$$

where X_i is the value of an individual measurement; n – total number of measurements in the group.

b. Variance according to the formula

$$S^2 = \frac{\sum\left(\overline{X} - Xi\right)^2}{n-1}$$

c. The formula for calculating the standard error of the arithmetic mean (m) using the formula

d. To assess the reliability of differences in average indicators, we used

Student's t test

$$\mathbf{m = \frac{\delta}{\sqrt{n-1}}}$$

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$$t_{\partial} = \frac{\left|\overline{x} - \overline{y}\right|}{\sqrt{\frac{s_X^2}{n} + \frac{s_Y^2}{n}}}$$

Where n is the sample size,
$\sum -$ sum,
x, y - experimental data
Sx, Sy -variances.

Using methods of statistical processing of experimental data, hypotheses associated with the experiment are directly tested, proven or disproved.

Organization of the study

The study was conducted on the basis of general educational school No. 25 in Chirchik. The study involved volleyball players aged 10-12 years old, involved in the volleyball section. The sample of this group of subjects consisted of 20 volleyball players, who were divided into 2 subgroups: control - 10 people and experimental - 10 people. The study consisted of stages II.

Stage I (October 2022): determination of the initial (initial) level of special physical training of volleyball players (10-12 years old).

Stage II (December 2022): identification of differences in the special physical training of volleyball players (10-12 years old), comparison of the obtained data with the initial (initial) indicators.

III (March 2023) stage - analysis of research results

Determination of the level of technical training of children of primary school age was carried out using control exercises, the implementation of which demonstrates the level of proficiency in volleyball techniques.

Pedagogical control tests (testing) were used for the purpose of:

a) determination of the initial (initial) level of special physical training of volleyball players 10-12 years old;

b) tracking the difference in the development of special physical training of volleyball players 10-12 years old

To determine the reliability of differences between the series of indicators of the control and experimental groups, the method of determining Student's t - test was used.

Research results and discussion

According to the results of the average data on jumping up at the beginning of the experiment, the result in the control group was 20 cm, in the experimental group - 21 cm. At the end of the experiment, the result in the control group was 22 cm, in the experimental group - 24 cm.

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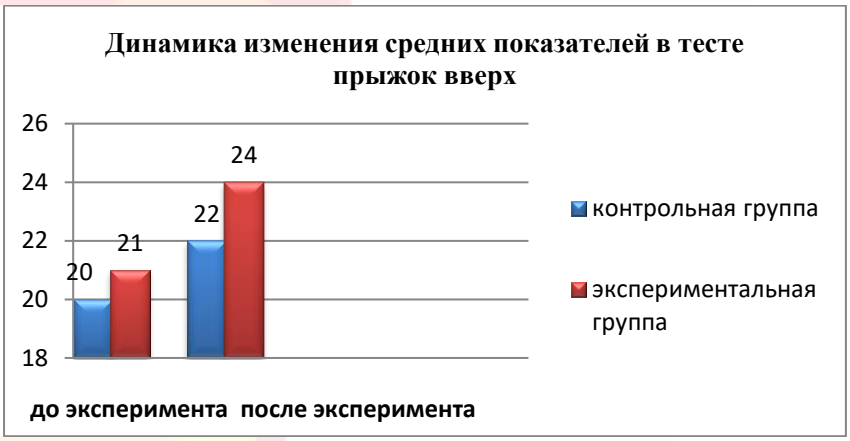

In the control and experimental groups, testing of physical fitness showed: 1. According to the results of average data in standing long jumps at the beginning of the experiment, in the control group the result was 170m, in the experimental group - 174m. At the end of the experiment, the result in the control group was 172m, in the experimental group - 179m.

Using a 3*10m shuttle run, the control group at the beginning of the experiment had an indicator of 8.9s, and the experimental group - 9.25s. At the end of the experiment, the control group had an indicator of -

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9.49 s, and in the experimental group - 9.74 s.

According to the study data, it is clear that at the beginning of the experiment the reliability of the differences is small; by the end of the experiment, the indicators in the experimental group changed significantly. This suggests that the technique effectively influences the development of special physical qualities of 10-12 year old volleyball players

Conclusions

1. A study of the literature on the topic of the work allowed us to draw the following conclusions:

- The age period from 10 to 12 years is characterized by rapid development of physical qualities and is extremely favorable for the targeted practice of various sports. From the point of view of sports training, this age is decisive. It is during this period that the greatest increase in the development of speed, strength, agility is achieved, the foundations of technique and tactics are laid, and a sports character is formed. It is known that the age of 10-12 years is characterized by a high degree of sensitivity in relation to training influences aimed at developing physical qualities.

2. Control exercises were considered to assess the level of special physical qualities in the training of volleyball players:

- Jump up
- Standing long jump (cm)
-Shuttle run 3*10(sec)

3. Thus, in the course of the study, we came to the conclusion that the use of methods for developing special physical qualities in the educational and training process, together with the implementation of technical elements of volleyball, increases the overall base of motor abilities of athletes, contributing to more effective implementation of the basic technical elements of volleyball. Therefore, there is reason to consider the proposed method effective.

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ISSN (E): 2942-9943

PHYSICAL EDUCATION AND SPORTS ARE THE MAIN MEANS OF MAINTAINING A HEALTHY LIFESTYLE

Yusupbayeva Amangul Saparbaevna
Teacher of the Department of Physical Culture and Sports
Chirchik State Pedagogical University
e-mail: *ayusupbayeva1971@gmail.com*

Annotation: The article creates conditions for the formation of a healthy lifestyle in our society, for the population, especially the younger generation, for regular physical education and mass sports, building confidence, strengthening courage and patriotism, improving feelings of loyalty to the motherland.
Key words: healthy lifestyle, courage and patriotism, loyalty to the motherland, talented athlete

Raising a healthy generation, deciding on a healthy lifestyle, protecting human health in every possible way is reflected in the legacy of our ancestors to this day. To determine the pedagogical conditions for the formation of a healthy lifestyle in primary school students;
determining the effectiveness of the methods and tools of the basics of a healthy lifestyle in primary classes;
healthy lifestyle in elementary school students in the course and extracurricular process factors affecting formation.
1. Specific aspects of the formation of a healthy lifestyle among primary school students were explained theoretically;
2. Lessons in the formation of a healthy lifestyle were analyzed;
3. The conditions for the organization of extracurricular activities in primary classes on the formation of a healthy lifestyle were determined.
The existing pedagogical foundations of the formation of a healthy lifestyle in elementary school students were studied, and effective methods and tools for the development of a healthy lifestyle in elementary grades were determined. In the elementary grades, we defined the following forms of extracurricular information: hygiene gymnastics, exercise, health minutes, breaks for movement, physical education hour for extended groups, sports clubs, health and sports days, physical education holidays, health training camps, school sections on sports, etc. Currently, the most important process is the implementation of content-rich classroom and extracurricular activities that include our national traditions and the geography and climate of Uzbekistan. If g is carried out regularly, it will give the expected results. In the organization of mutual learning or learning, physical education turns into a belief that training is useful and necessary, and the belief turns into stable moral norms. The Law of the Republic of Uzbekistan on Public Education and on Physical Education and Sports states that the citizens of the Republic of Uzbekistan must take care of their physical training in order to improve and strengthen their health. This law fully applies to physical education at school.
It is especially appropriate to get acquainted with the sports pride of Uzbekistan. We recommend introducing the following athletes during our research:
Among them, athletes who received the honorary title "Pride of Uzbekistan" in 1998: Muhammadkadir Abdullayev, Lazizbek Zakirov, Artur Grigoryan, Temur Tolaganov, Ruslan Chagayev and others. Athletes who received the honorary title "Pride of Uzbekistan" in 1999: Akobir Kurbanov 1st world champion in national wrestling, Erkin Qutiboyev, kickboxer - 3-time world champion in muay thai. In 2000, Makhtumkuli

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Makhmudov - the 2nd world champion in national wrestling, Sabir Kurbanov, the world and European champion in Sambo, and others. As we introduce these athletes to the students, they have in mind:
- The feeling of pride towards the athletes of our country will increase;
- Love for sports increases;
- Pupils strive to be like them;
- They encourage to achieve new victories;

The formation of physical fitness training as the main topic should not be viewed in a narrow sense, because it is the main part of the lifestyle, the system that ensures the health of the nation. constant participation, participation in competitions, mastering all types of sports is the first purposeful step towards the top ranks of the spotter. The quality of activities related to physical education and sports outside the classroom and school depends on attracting more students to the sports school for children and teenagers. The winning teams will be encouraged. Then they get a ticket to the next competitions. In addition, individual winners of sports competitions such as checkers, chess, basketball, hand tennis are also determined. This also determines the future of sports in our Republic. Another aspect of the activity of physical fitness outside the classroom and school is the organization of a system of mutual cooperation of the school, family, public organizations and all persons related to the educational process. In this field, the sports festival "Healthy-wrestler", "Kuvnoq starts" game, and "Students' spartakiade" are given a wide place. We believe that the mutual cooperation of school, family, pedagogues, students and parents is an important tool that improves the quality of work and implements a healthy lifestyle in the daily life of students. It is important for a child to engage in physical education and sports for a healthy and well-rounded formation. The importance of physical education in strengthening human health will be explained to the students during the training. A person engaged in physical education becomes strong, agile, resistant, strong-willed, resilient, brave, beautiful and mobile. Therefore, he tries to perform every action independently, well and with little effort. According to historical sources, the national sports and national games of the Uzbek people varied depending on the living conditions of the population and prepared people for active and productive work. The total amount of such national Uzbek games is not less than 3-5 thousand. Searching for these games, learning them and re-promoting them to the students during training will serve to raise our spirituality to a new level, form a healthy lifestyle, and strengthen the content of educational work.

As President I.A. Karimov noted, "caring for the future generation is our national characteristic, striving to raise a healthy, well-rounded generation." [I.A. Karimov A healthy generation is the foundation of Uzbekistan's development", 1997]. There are various guidelines and methods for forming and raising a healthy generation. It is especially important to properly organize children's free time and teach them various national movement games. This aspect of child education is also a matter of importance to the state and society. Our president paid special attention to the solution of this problem based on the needs of the times, and the organization of students' free time, including the restoration and implementation of forms of mass sports and physical education, especially about national sports games.

puts forward the opinion that collecting information, enriching it and conducting a wide campaign among our youth based on it is one of the urgent issues on the agenda. [I.A. Karimov "Courageous people build the future" 1999.] Because national action games and sports are also part of national values, and collecting, enriching and presenting them to children is one of the important tasks of raising a healthy generation. People's action games, national sports have been improved over the centuries in accordance with the times.

1. Like "White poplar or blue poplar", "Cat and mouse", "Chillak", "Rock game", "Horse game", "Find your place", "Happy geese" such national games serve to make students agile, agile, brave.

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2. It should also be said that the superiority of the game over other educational methods increases children's cooperation. Develops his creative thinking, ensures that he is ambitious and resistant to difficulties. Pupils learn to set a goal for themselves in each training session and try to achieve it during training. For example, the tug-of-war game, in which children test their strength and fitness, and also increase their motivation to work hard to win. . The skills of patience increase in the process of fighting.
Besides, children think during the game. The members of the defeated group learn to pull their feet, gather their strength and act together.
- teach patience;
- teaching self-management;
- teaching children to think;
- preparing to be present;
- teach solidarity and sympathy during the game;
- teaching to work as a team and so on.

In his time, the great thinker Abu Ali Ibn Sina spoke about the issue of improving and strengthening body health, preventing and getting rid of disease, and its wide use in other cases, and expressed it in his works many times. That's why Abu Ali Ibn Sina said, "If a person does not run when he is healthy, he will definitely run when he is sick," or a person who does moderate exercise will never need to take medicine. Or he says, "One of the great healers I am leaving behind is cleanliness, the second is diet, the third is physical education, and the rest is the mood with the client." Physical education is aimed at strengthening health, achieving high work ability, acquiring vital skills and skills. It is important in preparing a person for productive work. In addition to physical characteristics, valuable mental characteristics are also developed at this time. Various physical exercises, active games, and sports are the means of physical education. They are engaged in them at home, at school, in children's sports schools. Physical education has different tasks at different ages. Pupils of I-IV grades improve their muscle sensations, the ability to distinguish the tempo and extent of movement, the degree of muscle tension and relaxation. They master the correct technique of movement, that is, they perform exercises in the necessary directions, rhythm, tempo, with the tension of the relevant muscles. If schoolchildren have not learned to perform the basic elements of actions correctly, if they do not strive to bring the action to the end, they will not be able to achieve sufficient results. Improving movement techniques is related to the formation of a person's personality. Physical education has a developing and corrective effect on the body. It eliminates height defects, curvature of the spine, hunchback; with the help of physical exercises, it is possible to correct some defects in the stature, namely, chest depression, small shoulders, and the lack of well-developed muscles. There is a special exercise complex for girls and boys. They take into account the characteristics of the body, the aesthetic requirements for the figure of boys and girls. In addition, physical exercises improve a person's mental state, appearance and mood, and increase the general vital tone. The great Hakim Abu Ali ibn Sina "regularly performing morning physical education, running, swimming, enjoying nature's scenery and listening to music are effective in strengthening a child's memory" - ["Laws of Medicine" Abu Ali Ibn Sina]. In conclusion, physical education and sports are very important for the young generation, who are the heirs of our great future. School teachers should teach students that an unhealthy lifestyle leads to diseases and suffering, and a healthy lifestyle leads to health and a happy life.

Summary

The development and strength of every country largely depends on the physical and mental health of the young generation. The issue of raising a perfect generation has risen to the level of state policy and is now considered a priority task. The main directions of raising a healthy generation have been promoted by our respected President Islam Karimov since the first days of independence. In connection with the declaration of 2005 as

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the "Year of Health" the decision of the Cabinet of Ministers on January 25, 2005 on the "Year of Health" State Program was adopted. According to this decision, the order of the Ministry of Public Education No. 19 of January 31 was issued. On the basis of this order, the order No. 6 of the Republican Education Center dated February 16 was developed. "Health - the year of health" The implementation of the measures specified in the state program requires selfless work. For example, in order for the growing young generation to be healthy at all times, one of the most important tasks is to form a healthy lifestyle and provide ecological and hygienic education. In this regard, health lessons are included in general secondary education schools to promote a healthy lifestyle and lifestyle, in which ecological and hygienic education is provided. Lessons conducted in order to provide knowledge about the personal health of students, to protect it, to have a positive attitude towards hygienic knowledge, to maintain children's health and to introduce them to life in everyday life, are designed for 17 hours in each class during the academic year. . The purpose of teaching these classes is to teach students ways to achieve mental and spiritual maturity, to prepare a healthy generation for a healthy life. The state educational standard defines the following requirements for the knowledge, skills and qualifications that elementary school students should acquire regarding their health and physical development.

1. Hygiene and standards of human health and physical development, protection of one's health, risk to oneself - prevention of danger, observance of cleanliness, proper nutrition, physical training, to know such concepts as physical education, striving to be physically beautiful, feeling and enjoying physical elegance:
2. Understanding the essence of exercise, regular physical education, washing, physical exercises;
3. Performing morning gymnastics;
4. Knowing and following personal hygiene standards;
5. Knowing how to provide first aid;
6. Compliance with the agenda;
7. Dental care. Dental disease and prevention;
8. Compliance with food hygiene;
9. The concept of "health is wealth" and its implementation;
10. Knowing habits that are harmful to human health.

Every student is required by the state to meet the guidelines. First of all, the work is to create a healthy culture in every person, to create a healthy environment in the society, and to educate the skills of mother nature protection. At the meetings of the primary school method association, teachers should reflect on the proposed innovations, advanced technologies for promoting a healthy lifestyle, and exchange experience. In primary grades, it is recommended to conduct educational lessons with the following topics:

- "Your health is in your own hands";
- "Reproductive health and healthy family";
- "Combating and preventing drug addiction";
- "Providing emergency medical care";
- "Environment - environmental protection";
- "Water is the source of life";
-" Health benefits";
- "Health is wealth";
- "Take care of nature";
-" Importance of physical exercises in strengthening health";
- "Students' Agenda";

It is no coincidence that the fifth direction of the decree of the head of our country "On the State National Program for the Development of School Education in 2004-2009" is about the development of children's

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sports. Because doing physical exercises for children makes them strong, agile, resilient, strong-willed, resilient, brave, beautiful and active. As a result, children's ability to work is high. Having a high work capacity is the first sign of health. Also, regular exercise improves the work of the lungs, digestion and other organs in the child's body. Most importantly, it increases the body's resistance to the negative effects of the external environment and disease-causing microbes. A person with good physical fitness rarely gets sick, if he gets sick, he easily and completely overcomes the disease, and quickly recovers his work ability. Therefore, regular exercise has a positive effect on a person's health, develops him physically, makes him strong, strengthens his health, and makes it possible to open new aspects of his life. In order for the children of any society to develop well and healthy, the natural environment must have high ecological quality and quantity indicators. At the same time, every member of the society should have ecological consciousness and thinking, respect and love his place of residence. Based on the above, special attention is paid to ecological education in our country. "The world around us", which is taught in primary 1-4 grades of general secondary education schools. In the "Natural Science" science programs, a lot of attention is paid to giving students environmental lessons. It's not for nothing. Solving environmental problems in the formation of a perfect generation is becoming more and more urgent. "The international community has already recognized the sanctity and inviolability of human rights not only to the right to life, but also to the moderate environmental conditions necessary for a full and healthy life", - writes the Honorable President I.A. Karimov. "Uzbekistan on the threshold of the 21st century" In the current era, especially in the conditions where the need for science and technology, various technological processes has increased tremendously, it is recommended to cover the following topics in classes and extracurricular activities in order to provide theoretical and practical knowledge of the basics of ecology and environmental protection to the growing young generation. ." Preserving nature", "Protection of air and water around us", "Take care of water", "Nature and man - one whole", "What is ecology?" , "Ecological nature", "Air pollution", "Environmental responsibility". Through these topics, to explain the consequences of careless treatment of nature and its resources, the sad situation on the island, the fact that the main reason for children being sick and getting sick is the destruction of the environment and ecology. The educational task of the topics covered is to create an understanding in students that the health of each person depends on the external conditions surrounding him, to give them environmental education, to study the great contributions of our ancestors to the medical science, to respect them, to their scientific heritage. is to arouse interest. The goal of developing subjects is to help students learn natural science, social education, etiquette, health sciences and improve logical thinking about science. In the process of passing the topics, it is appropriate if the teacher uses various instructional tools, educational tools: tables, pictures with human parts, in accordance with the purpose of the topic. The educational purpose of passing the subjects. In recent years, President I.A. Through Karimov's initiative and fair policy, an understanding of the progress we are making about people and their health will be given. Health is happiness for everyone. The productivity of a person's work, the economic power of the country, and the well-being of the people depend on the health of people.

In order to maintain and strengthen his health, he must first know his body structure, the functioning of each of his organs, and the hygiene necessary for their normal growth and development. The work of all organs of the human body is related to each other and the external environment. In some schools, as a result of not creating suitable conditions for the child's body or not following the rules of hygiene, a large number of schoolchildren suffer from locomotion, heart-blood, and respiratory diseases. For example: when the classroom desks do not fit the student's body, the work of the locomotor organs is disturbed, the work of the respiratory organs is disturbed due to the lack of lighting, and the lack of heating of the classrooms. The level of medical and hygienic knowledge of public education workers should be sufficient to protect the health of students and develop a healthy way of life in their minds. After all, the knowledge and life skills learned from

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youth accompany a person throughout his life and are passed down from generation to generation as a tradition. Therefore, in all educational institutions, providing students with medical knowledge and forming the ability to protect their own health is considered as the main factor that guarantees the health of the population. The subjects "Etiquette" and "Human and his health" newly included in educational programs are the most important tools in this regard. In our free and prosperous country, the feeling of creating a healthy generation has taken a deep place in the hearts of our people, as well as sacred feelings such as homeland, nation, and honor. There is no doubt that the large-scale actions will have a positive effect.

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

THEORETICAL ASPECTS OF SPEED-STRENGTH TRAINING OF SHORT-DISTANCE RUNNERS

Boborakhmatov Bobir Buriyevich
Senior Lecturer, Termez Institute of Engineering and Technology
Republic of Uzbekistan

Annotation. Based on a theoretical analysis of data from scientific and methodological literature, the main direction and specific features of the training of qualified short-distance runners were determined. It has been established that the main condition for determining the content of training programs is the selection of the leading components of athletes' preparedness.
Key words: sprinters, speed-strength training, runners, annual cycle, speed abilities.

Introduction. Currently, the sporting achievements of runners of the Republic of Uzbekistan specializing in sprint running are several years behind the results of foreign athletes. This requires trainers, in collaboration with scientists, to look for new ways to rationalize and increase the effectiveness of the training process, the possibility of improving traditional forms and principles of its construction [5, 7, 8]. Recently, sports practice has accumulated a lot of positive experience in developing the speed and strength qualities of short-distance runners. However, the growth dynamics of modern sports skills require finding new, more effective ways to increase the level of special physical fitness [1, 3, 4].
Speed-strength training, during which special physical qualities are developed, occupies one of the leading places in the training program of short-distance runners and requires a large volume of exercises in different intensity zones. Training aids should contribute not only to the development of the necessary motor qualities, but also the ability to use them in the motor structure of a specialized exercise [2, 6, 9].
Literature review. Most experts believe that physical qualities such as strength and speed are closely related, while others determine the dependence of mastering the technique of the chosen sport on the level of strength and speed [10, 11].
Literary sources contain extensive material regarding the factors influencing the running speed of a sprinter. B. B. Babarakhmatov [12, 13, 14, 15] reviewed the most frequently recommended means and methods for improving the main components of running. He determined which aspects of physical fitness limit the development of speed. This will allow the trainer to create a program for individual correction of the training process [17, 19, 20].
The development of speed-strength qualities can be effectively carried out with the help of speed-strength and actual strength exercises [18, 21, 22]. Among the numerous means that contribute to their manifestation, jumping exercises are considered the most common [23].
The problem of choosing training tools that are adequate to training tasks is becoming increasingly urgent today. Reaching a new frontier of sports results is associated with the need to perform such training work that meets and even slightly exceeds the influence of the main competitive exercise [24, 26]. All this indicates the need for further improvement of the traditional system of using means and methods of speed-strength training for short-distance runners during the annual training cycle [25].

Research results. A high level of development of speed and strength qualities is a necessary condition for the preparation of qualified short-distance runners. Speed-strength training covers the entire variety of available

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ISSN (E): 2942-9943

means and methods aimed at developing the athlete's ability to overcome significant external resistance at maximum speed of movement. It should ensure the development of the quality of speed and strength in the widest range of their combinations [5, 7].

Strength training. The problem of developing the strength of the muscles involved in performing the main exercise is solved. The weight or resistance ranges from 80% to the maximum, and the nature and pace of the exercises varies - from 60% to the fastest. As a result of performing these exercises, the highest indicators of absolute muscle strength are ensured, which is also facilitated by the athlete's manifestation of volitional qualities. When performing special exercises, you should follow the following methodological rules:

- monitor the amplitude, tempo, and angular values of the manifestation of maximum muscle efforts for selective and most accurate impact on certain muscle groups in accordance with the working phases of the competitive exercise;
- use the reflex strength and elasticity of pre-stretched muscles;
- know that the faster the change in direction of movement is performed, the transition from flexion to extension, from "twisting" to "unwinding" and the shorter the braking path, the greater the impact the musculoskeletal system of athletes can withstand in this exercise;
- remember that the number of repetitions in one approach should continue until you feel slightly tired, but not exceed 25-30 in jumping exercises and without weights, 10-15 in exercises using light weights or effort on machines, 3-5 in exercises with medium weights or efforts;
- 1-2 - in exercises with large and maximum weights. The more repetitions, the more strength endurance develops.

Speed-strength training. The problem of increasing muscle strength and speed of movement is solved. Basic exercises or its individual elements are used, as well as their combinations without weights or with small weights in the form of a belt, vest, cuffs in running, jumping, and multi-jumps; running, jumping against the wind, downhill, increasing the distance between barriers, increasing the height of obstacles. The exercises are performed as quickly as possible and alternate at a given speed, as a result of which the greatest power of movements is achieved and the full amplitude is maintained.

Speed training. The problem of increasing the absolute speed of performing the main exercise (running, jumping) or its individual parts (various movements of the arms, legs, body) and their compositions (starting acceleration, acceleration, distance running) is being solved.

Scientists recommend facilitating the conditions for performing these exercises:

- running from a low start, acceleration with a reduction in the length of steps, the distance between barriers, increasing their pace;
- running or multi-jumping downhill, taking off from an elevation of 5-10 cm;
- use of special front traction simulators that lighten body weight by 10–15% (during push-off and running).

Movements should be performed as quickly as possible (rather than the main exercise or its element) and alternate at a given speed - 95-100% of the maximum.

Speed of movement is achieved by improving coordination of movements and consistency in the work of muscle groups. With continuous repetition of the exercises, the speed can be increased to maximum gradually, which will maintain relaxation and range of motion. These exercises should be performed at the beginning of the training session after warming up, having thoroughly warmed up the muscles in the previous repetitions (at low speed).

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Currently, many specialists adhere to such methodological provisions when using exercises in the process of developing special speed-strength abilities [5,10]: in order to create conditions for further increasing the level of development of speed-strength capabilities of individual muscle groups, that is, increasing speed-strength potential, local exercises are used in which resistance is overcome, which is 80% or more of the maximum with extreme and extreme intensity.

It is known that it is one thing to have a high level of this potential of individual muscles, and another to be able to demonstrate it during competitions. To increase the degree of use of this potential in the process of sports training, special and basic competitive exercises are used, in which the resistance value overcome is equal to the competitive value.

A significant drawback is that as the athlete's skill increases, the dynamics of shifts in the level of use of speed-strength potential when performing the main exercise decreases. This is explained by the following: when performing special and basic exercises, the athlete repeats them at the same speed. The body gradually adapts to it and favorable conditions are created for the formation of the so-called speed barrier, which sharply inhibits further increases in speed and the use of speed-strength potential.

We emphasize that special speed-strength qualities in qualified athletes at any stage of year-round training develop under conditions of high intensity of exercise. Therefore, in order to avoid stressful phenomena, it is necessary to systematically, taking into account the individual characteristics and functional state of the body, alternate large volumes of training work with medium and small ones in a weekly cycle, that is, use a variable approach [9].

Conclusions. 1. Three options for training athletes of different directions, which are used in speed-strength training, have been identified, and groups of exercises aimed at developing speed-strength abilities have been identified.

2. It has been established that the most important condition for determining the content of training programs is the selection of the leading components of speed-strength readiness.

3. To improve the training methodology, it is necessary to determine the rational composition of training means of different primary directions to maintain and maximize the special preparedness of qualified short-distance runners

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ISSN (E): 2942-9943

METHODS AND SKILLS FOR SPORTS DEVELOPMENT IN UZBEKISTAN

Tabynbaev Askar
Senior Lecturer, Interfaculty Department of Physical Culture, Karakalpak State University

Annotation. The article attempts to show the development of sports in recent years in Uzbekistan. It is noted that the priority direction of state policy is the formation of a physically and morally strong person, for whose development favorable conditions have been created.
Key words: Healthy generation, equipment and re-equipment, achievements in sports, sports schools, the importance of physical education

МЕТОДЫ И НАВЫКИ РАЗВИТИЯ СПОРТА В УЗБЕКИСТАНЕ

Табынбаев Аскар
старший преподаватель межфакультетской кафедры физической культуры Каракалпакского государственного университета

Аннотация. В статье предпринята попытка показать развитие спорта за последние годы в Узбекистане. Отмечается, что приоритетным направлением государственной политики является формирование физического и морально сильного человека, для развития которого созданы благоприятные условия.
Ключевые слова: здорового поколения, оснащение и переоснащение, достижения в спорте, спортивные школы, значимость физической культуры

O'zbekistonda Sportni Rivojlantirish Usullari Va Makoratlari

Tabinboev Asqar
Qoraqalpoq davlat universiteti
fakultetlararo jismoniy tarbiya kafedrasi katta o‘qituvchisi

Annotatsiya: Maqolada so‘nggi yillarda O‘zbekistonda sportning rivojlanishini ko‘rsatishga harakat qilingan. Ta’kidlanganidek, davlat siyosatining ustuvor yo‘nalishi – jismoniy va ma’naviy barkamol shaxsni shakllantirish bo‘lib, uning rivojlanishi uchun qulay shart-sharoitlar yaratilgan.
Kalit so'zlar: sog'lom avlod, jihozlash va qayta jihozlash, sportdagi yutuqlar, sport maktablari, jismoniy tarbiyaning ahamiyati

In our society, large-scale work is being carried out aimed at creating a healthy lifestyle, creating conditions for the population, especially the younger generation, that meet modern requirements for regular physical

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https://proximusjournal.com/index.php/PJSSPE
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education and mass sports, strengthening young people's will, faith in their own strengths and capabilities through sports competitions, development of courage, feelings of patriotism and devotion to the Motherland, systematic organization of work on the selection of talented athletes from among young people, as well as the further development of physical culture and mass sports.

Physical culture is a social phenomenon closely related to the economy, culture, socio-political system, health care, and education of people. Physical culture of an individual is the embodiment in the person himself of the results of the use of material and spiritual values related to physical culture in its broad sense, i.e. in the acquisition by a person of the necessary knowledge, skills, abilities and corresponding mental properties achieved through the use of physical education means, sports training, physical recreation.

Particularly noteworthy are the high achievements of representatives of our country at the Olympic Games, World Championships, Asian Games and Championships, international competitions, the growing authority and sports potential of Uzbekistan in the world, the construction in the regions of the republic of majestic sports facilities that meet international standards, which are becoming increasingly popular among students and student youth three-stage sports games "Umid Nihollari", "Barkamol Avlod" and the Universiade. Today the names of such outstanding and talented athletes as judoist Rishod Sobirov, canoeist Vadim Menkov, wrestler Artur Taymazov, tennis player Denis Istomin, tennis player Nigina Abduraimova, swimmer Sergei Pankov , gymnasts Ulyana Trofimova and Oksana Chusovitina, athlete Svetlana Radzivil, football player Odil Akhmedov, boxer Elshod Rasulov, taekwondo athlete Dmitry Shokin and, of course, FIFA referee Ravshan Irmatov, as well as many others, glorified Uzbekistan far beyond its borders.

The main work on the development of sports in the country is carried out by the Ministry of Sports Development for Culture and Sports.

At the same time, widespread propaganda and explanation in all regions of our country of the importance of mass sports in the life of a person and family, as the basis of physical and spiritual health, protection from bad habits of young people who are entering the path of life with great hopes, creating the necessary conditions for young people to realize their abilities and talents, improving the system of selection and targeted training of gifted athletes from among them remain important and urgent tasks.

Raising a healthy generation is one of the priority areas of state policy in Uzbekistan. In Uzbekistan, great attention is paid to physical culture and sports. As part of the implementation of the Program in 2017-2021, over 995.2 billion soums of funds will be allocated for the further development of physical culture and mass sports in the Republic of Uzbekistan, of which over 706.2 billion soums will be allocated for construction, reconstruction, major repairs, equipping and re-equipping 167 sports facilities, including 90 sports complexes and 77 swimming pools. This is confirmed by high achievements in sports and the presence of world-class sports facilities. Thus, the number of sports facilities in 2017 amounted to 51,306 units, of which 27,573 were in rural areas. The capacity (throughput) of all sports facilities is 2061.3 thousand people per day, in rural areas 1020.7 thousand people per day. The number of physical education groups and physical education and sports clubs was 12,312 units, 7,303 units in rural areas. The total number of children involved in physical education in physical education classes is 6,465,030 people. Of these, 5,179,511 people are in schools, 83,566 in academic lyceums, 1,062,531 in vocational colleges, 139,422 in universities. The number of girls is 3154.5 thousand, the number of boys is 3310.5 thousand. The number of people involved in sports in sports sections and departments during extracurricular and non-working hours in 2017 amounted to 2624.3 thousand people. According to the Law "On State Youth Policy," the organization of sports sections in educational institutions is one of the areas of state support for gifted and talented youth. Sports sections are organized by state education authorities in educational institutions.

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Thus, the number of sections in 2017 amounted to 120.7 thousand units. The number of students is 2624.3 thousand people, of which 1031.9 thousand are women, 372.1 thousand are schoolchildren studying in the Youth Sports School, sections of the KFC, FSK. There were 341 sports educational institutions across the country in 2017. Of these, the largest share falls on children's and youth sports schools - 66.3%, 15.5% are specialized children's and youth sports schools, 1.8% are specialized children's and youth sports schools of the Olympic reserve, 3.2% belong to higher education schools. sports excellence, 8.8% - specialized boarding schools for sports and 4.4% Olympic reserve colleges.

As part of the implementation of the Program in 2017-2021, over 995.2 billion soums of funds will be allocated for the further development of physical culture and mass sports in the Republic of Uzbekistan, of which over 706.2 billion soums will be allocated for construction, reconstruction, major repairs, equipping and re-equipping 167 sports facilities, including 90 sports complexes and 77 swimming pools.

At the same time, today the issues of covering all segments of the population with physical culture and mass sports, widespread propaganda in all regions of our country of the importance of physical culture and mass sports in the life of an individual and family, as the main condition for physical, spiritual health and perfection, creating the necessary conditions for youth to realize their abilities and talents, improving the system of selection and targeted training of gifted athletes from among them, await their systematic solution. The material and technical base of a number of sports institutions does not meet modern requirements; the level of effective use of their sports facilities remains low.

In order to solve the accumulated problems in this area, a resolution of the President of the Republic of Uzbekistan “On measures for the further development of physical culture and mass sports” was adopted. The resolution approved the Program for the further development of physical culture and mass sports in the Republic of Uzbekistan, providing for the implementation of large-scale measures for:

-further improvement of legislation aimed at developing the system of organization and management of the sphere of physical culture and sports;

-strengthening the material and technical base of the sphere of physical culture and sports, building modern sports complexes, equipping them with modern sports equipment and inventory, developing the private sector in this area;

-scientific and methodological support for training institutions, retraining and advanced training of personnel in the field of physical culture and sports, as well as providing sports schools with highly qualified coaches and medical workers;

-organization of recreational, physical education, sports and mass activities among pupils and students of educational institutions, the general population, holding complex sports events, selecting talented athletes among young people and their targeted training;

The implementation of the activities provided for within the framework of the resolution and the Program will further strengthen the role of physical culture and mass sports in the life of our society, the formation of a healthy lifestyle among all segments of the population, instilling in young people a love for mass sports and a healthy lifestyle by creating all the necessary conditions for the realization of one’s own sporting talent and abilities, and will also expand the ranks of famous athletes who raise high the banner of our Motherland in prestigious international arenas.

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

THE INTERACTIVE ROLE OF THE QUALITY OF WORKING LIFE IN THE RELATIONSHIP BETWEEN PROFESSIONAL COMPATIBILITY AND CAREER CREATIVITY

Lecturer. Dr. Jasim Saad Jasim
College of Physical Education and Sport Science, University of Thi-Qar, Thi-Qar, 64001, Iraq
Jasimaljasim77@utq.edu.iq

Abstract
The main research problem was represented by the gap between the intellectual understanding of the variables and the field reality of the university under study, as universities in Iraq in general and the University of Dhi Qar under study suffer from several problems, including at the level of their location and competition with other universities, and at the level of performing their duties towards beneficiaries, as these problems cause a decrease in the level of performance of their tasks as a result of either laws and ministerial instructions or as a result of the lack of capabilities and skills required to accomplish their functions by dealing with and managing things at the University, and the aim of this research is to study the influential relationship of the quality of working life in crystallizing the relationship between professional compatibility and career creativity measuring levels The research was conducted on the teachers assigned administrative tasks at the head of the University of Dhi Qar, who were deliberately selected, where (214) questionnaires were distributed, designed by the researcher, and after analyzing the results, it became clear that the quality of working life has an impact on the relationship between professional compatibility and career creativity at the level of professional compatibility of the individual with his the most important recommendations are to focus on internal working conditions by working on Establishing solid rules to enhance their levels and the level of work and awareness by teachers by building an organizational culture based on the development of physical and psychological work requirements and enhancing professional compatibility, which is one of the important indicators in the quality of performance of finding factors of adaptation of teaching to the internal and external environments .

Keywords: (The quality of working life, Professional compatibility, Career creativity).

ملخص البحث
مشـكلة البحث الأسـاسـية تمثلت بالفجوة ما بين الفهم الفكري للمتغيرات والواقع الميداني للجامعة قيد الدراسـة، إذ تعاني الجامعات في العراق بشـكل عام وجامعة ذي قار قيد الدراسـة من عدة مشـاكل منها على مسـتوى موقعها وتنافسـها مع الجامعات الأخرى ومنها على مسـتوى أداء واجباتها تجاه المستفيدين إذ تتسبب تلك المشاكل في انخفاض مستوى أدائها لمهامها نتيجة إما القوانين والتعليمات الوزارية أو نتيجة النقص في الإمكانيات والمهارات المطلوبة لإنجاز وظائفها عن طريق التعامل وإدارة الأمور في الجامعة,**وهدف هذا البحث** الى دراسـة العلاقة التأثيرية لجودة حياة العمل في بلورة العلاقة بين التوافق المهني والإبداع الوظيفي وقياس مسـتويات المتغيرات المبحوثة وقد تم إجراء البحث على (214) إستبانة تم تصميمها من قبل التدريسيين المكلفين بمهام إدارية في رئلسة جامعة ذي قار والذين تم إختيارهم بشكل عمدي، حيث وزعت الباحث وبعد تحليل النتائج إتضح أن لجودة حياة العمل تأثير في العلاقة بين التوافق المهني والإبداع الوظيفي على مستوى توافق الفرد مهنيا مع مؤسسته التعليمية وإبداعه في عمله المكلف به نتيجة لوجود حالة من الرضا عنها من حيث قدرتها على تسخير وإستغلال أمثل للموارد المادية والبشرية والتجهيزات والمعدات التي تلبي إحتياجات التدريسيين في أدائهم لاعمالهم ،وإن أهم **التوصيات** هي التركيز على ظروف العمل الداخلية عن طريق العمل على إرساء قواعد متينة لتعزيز مستوياتها ومستوى العمل بها وإدراكها من قبل التدريسين عن طريق بناء ثقافة تنظيمية قائمة على تطوير متطلبات العمل المادية والنفسـية وتعزيز التوافق المهني الذي يعد من المؤشـرات المهمة في جودة الأداء من إيجاد عوامل التكيف للتدريسي مع البيئتين الداخلية والخارجية.

1-1 مقدمة البحث وأهميته:

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 3, March, 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

إن المنظمات بصورة عامة والجامعات بصورة خاصة التي تسعى الى النجاح تلتزم بمنهج واضح لتحفيز موظفيها للإبداع الوظيفي الذي يعد سلوك يقوم به الافراد العاملين بهدف تحقيق اهدافهم التي تندمج بأهداف المنظمة التي يعملون بها وقد يتطلب ذلك أدوار مساندة كعوامل تنظيمية ومنها التوافق المهني وجودة حياة العمل فجودة حياة العمل تعد أحد المتغيرات التنظيمية المهمة والتي تهدف الى تحقيق الرضـــا الوظيفي ورفاهية العاملين مع السعي لتحقيق التوازن بين الحياة العملية والشخصية تحت ظروف عمل آمنة وصحية وانخفاض الإجهاد فضلا عن إن العالم اليوم يشـــهد الكثير من التعقيدات الفكرية والإجتماعية والإقتصـــادية والإختلافات في الرؤى والثقافات وتحت ظل هذا التعقيد كان من الضـــرورة للمنظمات التفكير بكيفية إتباع الأســاليب التنظيمية الحديثة التي من شــأنها خلق حالة من الإبداع الوظيفي للعاملين في إســتكشــاف الفرص وإســـتغلالها لتوليد الأفكار الإبداعية الجديدة ذات القيمة وتنفيذها والتي تنعكس في جميع الســـلوكيات التي يؤديها للموظفين، كما أن المهنية التدريســـية وبيئته عضـــو الهيئة بين مســـتمرة ديناميكية عملية التوافق المهني للتوافق المهني أثر كبيرعلى الاداء العملي حيثُ يعد بينه مفيدة حسنة علاقات عنه ومحققا مرضـيا عمله، عن راضـيا تجعله معها يتلاءم حالة إلى يصـل لكي معها والنفسـية، يتفاعل والاجتماعية العوامل ،ناهيك عن الرضا الإجمالي لمختلف جوانب هذه على تطرأ التي ومع المتغيرات معها، ومتوافقا بالعمل المحيطة البيئية العوامل وبين بيئة عمل الفرد (مشـرفه، زملائه، المؤسـسـة التي يعمل بها، سـاعات عمله، الأجر، نوع العمل) ويتضـح ذلك من إنتاجيته وكفايته ومن الطريقة التي ينظر بها إليه مشـرفه وزملاؤه والمؤسـسـة التي يعمل بها،وتأتي أهمية البحث من أهمية المتغيرات المبحوثة ومدى تفاعلها وتأثيرها على أداء التدريسي المكلف بمهام إدارية في رئاسة جامعة ذي قار .

2-1 مشكلة البحث :-

تتعلق مشكلة الدراسة بالفجوة ما بين الفهم الفكري للمتغيرات والواقع الميداني للجامعة قيد الدراسة، إذ تعاني الجامعات في العراق بشكل عام وجامعة ذي قار قيد الدراسة من عدة مشاكل منها على مستوى موقعها وتنافسها مع الجامعات الأخرى ومنها على مستوى أداء واجباتها تجاه المستفيدين إذ تتسبب تلك المشاكل في انخفاض مستوى أدائها لمهامها نتيجة إما القوانين والتعليمات الوزارية أو نتيجة النقص في الإمكانيات والمهارات المطلوبة لإنجاز وظائفها عن طريق التعامل وإدارة الأمور في الجامعة إذ تَلمس الباحث عن طريق لقاءاته مع بعض الأســاتذة الى وجود تحسس تجاه إدارة الجامعة في طريقة ادارتها لمجريات العمل وهذا بحد ذاته يتطلب الدراسة والفهم للأسباب التي أدت الى ذلك ومحاولة وضـع الحلول الملائمة ، ناهيك عن مدى توفر بيئة عمل ملائمة تتيح للتدريسـي المكلف بمهام إدارية في رئاسـة الجامعة التكيف والإنسـجام في عمله وصـولا تغيير سلوكه إلى الإتجاه الإيجابي الذي يعكس كفاءته وإبداعه وبهدف تحديد طبيعة المشكلة ضمن الحيز القابل للدراسة طرحت مجموعة من التساؤلات وهي: -

1- ما مستوى توافر سلوك التوافق المهني لدى التدريسيين في جامعة ذي قار ؟
2- ما مستوى توافر جودة حياة العمل في جامعة ذي قار ؟
3- ما مستوى توافر الابداع الوظيفي لدى التدريسيين في جامعة ذي قار ؟

3-1 اهداف البحث:

1- قياس مستوى سلوكيات التوافق المهني لدى التدريسين عينة الدراسة في جامعة ذي قار.
2- معرفة مدى جودة حياة العمل الذي يتمتع به التدريسين في جامعة ذي قار.
3- التعرف على مستوى إبداع التدريسين في جامعة ذي قار.
4- قياس مستوى واتجاه علاقة الارتباط بين التوافق المهني والابداع الوظيفي في جامعة ذي قار.
5- قياس مستوى واتجاه علاقة الارتباط بين جودة حياة العمل والابداع الوظيفي في جامعة ذي قار.
6- معرفة مستوى وحجم تأثير التوافق المهني في الابداع الوظيفي للتدريسين العاملين في جامعة ذي قار.
7- معرفة مستوى وحجم التأثير الذي تؤديه جودة حياة العمل في تعزيز الابداع الوظيفي في جامعة .
8- التحقق من حجم التأثير التفاعلي لجودة حياة العمل على العلاقة بين التوافق المهني والابداع الوظيفي في جامعة ذي قار.

4-1 مجالات البحث :

1- الحدود البشرية: تمثلت الحدود البشرية للدراسة بالملاك الإداري للتدريسيين المكلفين بمهام إدارية في رئاسة جامعة ذي قار .

2- الحدود الزمانية: تمثلت الحدود الزمانية لهذه الدراسة بالمدة التي شملت كتابة الإطار المنهجي والنظري والتطبيقي بين 2023/7/13 لغاية 2023/11/5.

3- الحدود المكانية: كان اختيار جامعة ذي قار لأجراء الجانب الميداني للدراسة.

2-1 منهج البحث :

إن اختيار المنهج الملائم لحل مشكلة البحث يعد من الخطوات المهمة التي يترتب عليها نجاح البحث والذي يعتمد على طبيعة المشكلة ومدى وضوحها وتوفر المعلومات الصحيحة عنها والذي يميزها عن باقي المشاكل البحثية ، ولهذا اختار الباحث المنهج الوصفي بالأسلوب المسحي والعلاقات الارتباطية لحل مشكلة البحث بوصفه أكثر المناهج ملائمة للوصول إلى أهداف البحث .

2-2مجتمع البحث وعينته

Proximus Journal of Sports Science and Physical Education
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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

تمثلت عينة الدراسة بعينةٍ قصدية مؤلفة من الأساتذة التدريسيين المكلفين بمهام إدارية في رئاسة رئاسة في جامعة ذي قار إذ بلغ عدد افراد المجتمع (234) تدريسي، وكان عدد الاستبانات التي وزعت(214) استبانة والتي أستردت (201) كلها صالحة للتحليل حيث إستبعد الباحث العينة الإستطلاعية وعددهم (20) تدريسي، أما الإستمارات التي لم تعالج إحصائيا فهي لم يكتمل الإجابة عليها والتي لم تصل من المفحوص إذ بلغت نسبة الإجابة على الاستبانة ما يقارب(95.6%).

وقد تم تقسيم العينة بالطريقة الاتية :

أولاً: عينة التطبيق الأولي (التجربة الاستطلاعية) للمقاييس الثلاث: حيث تكونت عينة التجربة الاستطلاعية للمقاييس الثلاثة من (30) تدريسي وبنسبة(12.8%) من العينة الكلية

ثانيا: عينة بناء المقياس: حيث تكونت عينة البناء للمقاييس الثلاثة من (124) تدريسي وبنسبة(52.99%) .

ثالثا: عينة التطبيق: حيث تكونت عينة التطبيق للمقاييس الثلاثة من (80) تدريسي وبنسبة(34.18%) .

2-2-1وصف عينة الدراسة:

الجدول (1)

وصف عينة الدراسة

الخاصية		التكرار	النسبة المئوية
الجنس	ذكر	165	70.5%
	أنثى	69	29.4%
الفئة العمرية	30-25 سنة	45	19.2%
	40-31 سنة	66	28.2%
	50-41 سنة	57	24.3%
	60-51 سنة	37	15.8%
	61 فأكثر	29	12.3%
الشهادة	ماجستير	83	35.4%
	دكتوراه	151	64.5
المجموع		234	100%

3-2 وسائل جمع المعلومات والبيانات والأجهزة المستخدمة :

2-3-1وسائل جمع المعلومات والأجهزة المستخدمة: :

1- المصادر والمراجع .
2- المقابلات الشخصية.
3- الاستبيان.
4- الانترنت .
5- جهاز حاسوب محمول عدد(1) نوع (DELL) .
6- حاسبة الكترونية يدوية عدد(1) نوع(كاديو) .
7- طابعة ليزرية نوع (كانون)0

4-2 إجراءات البحث الرئيسية :

2-4-1 تحديد ابعاد المقاييس الثلاثة :

بعد الاطلاع على المصادر والمراجع العلمية والدراسات السابقة التي تخص علم الإدارة العامة والإدارة الرياضية وبعض المقاييس, والاستعانة بآراء بعض الخبراء ضمن اختصاص الادارة والتنظيم وعلم النفس الرياضي والاختبارات والقياس في التربية الرياضية كذلك من ذوي الخبرة في كلية الادارة والاقتصاد فقد حدد الباحث ستة أبعاد لمقياس جودة حياة العمل (الرضا الوظيفي، الرفاه العام، التوزان بين الحياة والعمل، السيطرة على العمل، ظروف العمل، الاجهاد في العمل)،وأربعة أبعاد لمقياس التوافق المهني وهي (طبيعة العمل ، سلوكيات العمل ، التناسب المادي ، التعامل مع الاخرين)،وبعدين لمقياس الإبداع الوظيفي هما(إستكشاف وتوليد الفكرة،دعم وتنفيذ الفكرة)عرضت أبعاد المقاييس على ذوي الخبرة والاختصاص وكان عددهم (10) خبراء وذلك لتحديد الأبعاد الرئيسية لبناء المقاييس وبيان صلاحية هذه الأبعاد أو تعديلها أو اقتراح أبعاد أخرى وإبداء اية ملاحظات وبعد تحليل الإجابات باستخدام قانون مربع كاي لاتفاق رأي الخبراء تحددت أبعاد المقاييس المذكورة من خلال الاعتماد على معنوية الفروق بين الموافقين وغير الموافقين ، وحسب ما استخرج من خلال (كا ^{2}) تحت مستوى دلالة (0.05) وبدرجة الحرية (1) وبقيمة جدولية تساوي (3.84) ومن خلال مقارنتها بالمحتسبة وبنسبه مئوية (70%) فأكثر لقبول الأبعاد، أي بواقع (7) خبراء ،فلم يتم استبعاد أي بعد من أبعاد المقاييس الثلاثة، كما مبين في جدول (2) .

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الجدول (2) يبين قيم مربع كاي

المقياس	الأبعاد	عدد العبارات	الخبراء الموافقون	الخبراء الغير موافقون	كا2المحتسبة	النسبة المئوية لإتفاق الخبراء
جودة حياة العمل	الرضا الوظيفي	6	9	1	8	90%
	الرفاه العام	6	7	3	4	70%
	التوازن بين الحياة والعمل	3	10	صفر	10	100%
	السيطرة على العمل	5	8	2	6	80%
	ظروف العمل	3	9	1	8	90%
	الإجهاد في العمل	2	8	2	6	80%
	المجموع	25				
التوافق المهني	طبيعة العمل	4	10	صفر	10	100%
	سلوكيات العمل	4	9	1	8	90%
	التناسب المادي	4	10	صفر	10	100%
	التعامل مع الآخرين	3	9	1	8	90%
	المجموع	15				
الإبداع الوظيفي	إستكشاف وتوليد الفكرة	5	10	صفر	10	100%
	دعم وتنفيذ الفكرة	5	9	1	8	90%
	المجموع	10				

2-4-22: تحديد أسلوب وأسس صياغة العبارات

إستخدم الباحث أسلوب (ليكرت) في صياغة العبارات وبعد إعداد المقاييس الثلاثة بصيغتهما الأولية قام بعرضها على مجموعة الخبراء نفسها للتأكد من صلاحيتها في قياس ما وضعت من أجله ومناسبتها للأبعاد وكذلك معرفة العبارات الإيجابية والسلبية وكذلك التعرف على العبارات التي تحتاج إلى تعديل وتقديم التعديل المقترح ، وبعد إن أبدى الخبراء والمختصون آرائهم وملاحظاتهم وتعديلهم لبعض عبارات المقاييس عولجت العبارات احصائياً بتطبيق النسبة المئوية ومربع كا^2 تحت مستوى دلالة (0.05) وبدرجة الحرية (1) وبقيمة جدولية تساوي (3.84) ، ونتج عن التحليل النهائي استبعاد العبارات التي كانت نسبتها أقل من 70% حيث إنحصرت قيمة النسبة المئوية مابين(90%-40%)وقيمة مربع كاي ما بين(8-1)كما هو مبين في جدول (2) حيث أن عدد العبارات الموجود في الجدول المذكور سالفا هو االعدد النهائي للمقاييس الثلاثة بعد المعالجة الإحصائية .

2-4-3 أسلوب تصحيح عبارات المقاييس :

لقد صيغت عبارات المقاييس باتجاهين أحداهما إيجابي والآخر سلبي وقد تحددت أوزان العبارات من (1- 5) درجات لكل عبارة من عبارات المقاييس ، ولذا فقد وضعت خمسة بدائل واستجابات متدرجة لغرض الحصول على الدرجة الكلية لكل فرد من أفراد العينة ،اذ بلغت اعلى) درجة واقل قيمة هي (25) درجة ،و بلغت اعلى درجة لمقياس التوافق المهني (75) درجة واقل قيمة **125**درجة لمقياس جودة حياة العمل (هي (15) درجة،في حين بلغت أعلى درجة لمقياس الإبداع الوظيفي(50)وأقل درجة(10) ومن خلال جمع درجات المستجيب على سلم التقدير الخماسي نحصل على الدرجة الكلية .

2-5 التجربة الاستطلاعية لعبارات المقاييس :

للتأكد من صحة صياغة العبارات وكونها مفهومة أو غير مفهومة بالنسبة للعينة وللتعرف على الصعوبات التي تواجه عملية التطبيق النهائي والتعرف على الوقت اللازم للإجابة على عبارات المقاييس من قبل التدريسيين ومعرفة كفاءة الكادر المساعد، فقد تم تطبيق المقاييس (ملحق 7) على عينة من التدريسيين في جامعة ذي قار والذين بلغ عددهم (30) تدريسي.وطلب الباحث من العينة ملاحظة كل عبارة بدقة والتأشير عليها بعلامة (√) في الحقل المناسب وقد تم ذلك يوم الأثنين بتاريخ 2023/7/23 م وأوضحت نتائج هذا الإجراء إن العبارات كانت واضحة لدى أفراد العينة ،وتمت الإجابة على جميع العبارات و حُدد الزمن التقريبي للإجابة على عبارات المقاييس الثلاثة بزمن قدره (25-30) دقيقة .

2-6 تجربة تطبيق المقاييس على عينة البناء :

طبقت المقاييس الثلاثة على عيّنة البناء المكونة من (70) تدريسياً في جامعة ذي قار وتم ذلك في المدة من 2023/8/15 ولغاية 2023/10/12 حيث وزعت استمارات الاستبيان على أفراد العينة وطلب منهم قراءة التعليمات التي تخص عملية الاجابة على الاستبيان ثم بعدها جمعت ودققت إجابات أفراد العينة وذلك للتأكد من سلامة الإجابة على جميع العبارات، ثم قام الباحث بتحليل هذه العبارات إحصائياً

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

للكشـــف عن قابليتها على التمييز وارتباطها بالدرجة الكلية لكل مقياس واســـتبعاد العبارات غير المميزة منهما ،وقد اعتمد الباحث اســـلوب المجموعتين الطرفيتين والاتســـاق الداخلي ، حيث تراوحت قيم الأوســـاط الحســـابية للمجموعة العليا لمقياس جودة حياة العمل ما بين(3.920–4.960)بينما تراوحت قيم أوساط المجموعة الدنيا ما بين(1.200-2.520)،والقيمة التائية المحتسبة ما بين(7.562-1.549)،أما مقياس التوافق المهني فقد تراوحت قيم الأوساط الحسابية للمجموعة العليا ما بين(3.437–4.410)بينما تراوحت قيم أوساط المجموعة الدنيا ما بين(1.693-2.371)، والقيمة التائية المحتســـبة ما بين(6.742-1.467)،في حين تراوحت الأوســـاط الحســـابية للجموعة العليا لمقياس الإبداع الوظيفي ما بين(4.043-3.543)بينما تراوحت أوســـاط المجوعة الدنيا ما بين(1.349-2.210) والقيمة التائية المحتســـبة ما بين(5.943-1.821)،وعند مقارنتها مع قيمة (ت الجدولية) البالغة (2.011) تحت مستوى دلالة (0.05) وتحت درجة حرية (68) فقد أستبعدت العبارات الغير مميزة والتي كانت الدرجة التائية المحتســـبة لها أقل من الجدولية،الجدول(2)المذكور ســـالفا يوضـــح عدد العبارات لكل مقياس وتوزعها على أبعاد المقاييس ، في حين تراوحت قيم إرتباط العبارة بالمقياس لمقياس جودة حياة العمل ما بين(0.741-0.122)،في تراوحت لمقياس التوافق المهني ما بين (0.689-0.159)أما مقياس الإبداع الوظيفي فقد تراوحت قيم معامل الإرتباط ما بين(0.801-0.179)،حيث أســـتبعدت العبارات التي)أكبر من (0.05). **sig**مستوى دلالتها (

7-2 المعاملات العلمية للمقياسين :

1-7-2 الصدق :

إســتخدم الباحث الصــدق الظاهري ، وقد تحقق ذلك من خلال عرض المقاييس الثلاثة على الخبراء والمختصــين في مجال التربية الرياضــية ضمن اختصاص الادارة والتنظيم وعلم النفس الرياضي والاختبارات والقياس كذلك الإدارة والاقتصاد،أما صدق البناء فقد تحقق من إستخدام أسلوب المجموعتين الطرفيتين من خلال إستخراج القوة التمييزية لعبارات المقاييس والتي في ضوئها تم التعرف على العبارات القادرة على التمييز بين الأفراد الحاصلين على درجات مرتفعة والحاصلين على درجات منخفضة وباستخدام الاختبار التائي،كما استخدم الباحث معامل الاتساق الداخلي في تحليل عبارات كل مقياس أي حساب صدق عبارات المقياس باستخدام المحك الداخلي (الدرجة الكلية للمقياس) من خلال إيجاد العلاقة الارتباطية بين درجة كل عبارة ودرجة المقياس ككل.

2-7-2 الثبات :

اولاً : طريقة التجزئة النصفية :

جزَّأت عبارات كل من مقياس جودة حياة العمل ومقياس التوافق المهني ومقياس الإبداع الوظيفي الى نصــفين حيث أصــبح عدد عبارات النصف الأول لمقياس جودة حياة العمل(13)عبارة والنصف الثاني(12) عبارة، أما عبارات مقياس التوافق المهني فجزأت الى نصفين حيث أصبح عدد عبارات النصف الاول (8) عبارات والنصف الثاني (7)،في حين كانت عدد عبارات كل نصف من مقياس الإبداع الوظيفي(5) وحسب تسلسل العبارات الى فردي وزوجي وبعدها استخرج معامل الارتباط لكل مقياس بين درجات النصفين بطريقة بيرسون ، وبلغ معامل الارتباط بين درجات النصــفين (0.556) لمقياس جودة حياة العمل و(0.639) لمقياس التوافق المهني و(0.604)إلا إنَّ هذه القيم تمثل معامل ثبات نصــف الاختبار و حتى نحصــل على معامل ثبات الاختبار ككل ، عليه اســتخدم الباحث معادلة (ســبيرمان- براون) لتصــحيح معامل الارتباط وبعد التصحيح أصبح معامل الثبات مقياس جودة حياة العمل (0.715) بينما أصبح معامل ثبات مقياس التوافق المهني (0.780) في حين كانت (0.741)لمقياس الإبداع الوظيفي وهذه القيم تمثل معامل ثبات عالٍ يمكن الاعتماد عليه لتقدير ثبات المقاييس .

ثانياً : طريقة الفا كرونباخ .

تعد من أكثر مقاييس الثبات شيوعاً وأكثرها ملائمة للمقاييس ذات الميزان المتدرج ،اذ تم استخراج الثبات بهذه الطريقة من خلال تطبيق معادلة) اذ تبين إنَّ قيمة معامل الثبات لمقياس جودة حياة **spss**كورنباخ على أفراد عينة البناء البالغة (70) تدريسياً باستخدام الحقيبة الاحصائية (العمل (0.885) ومقياس التوافق المهني تساوي (0.758) أما مقياس الإبداع الوظيفي كانت(0.705)وهو مؤشر ثبات عال للمقياسين .

3-7-2 الموضوعية :

تم ايضاح التعليمات الخاصة بتطبيق الاختبار (المقياس) من حيث اجراءاته، إدارته وبما إن المقاييس تحتوي على مفتاح واحد للتصحيح فأن كل مقياس منهما يعتبر مقياساً موضوعياً.

8-2 معامل الالتواء للمقياسين

وللتعرف على مدى قرب أو بعد إجابات العينة من التوزيع الطبيعي قامت الباحث بحســـاب معامل الالتواء باســـتخدام البرنامج لمقياس جودة حياة العمل و(0.260) لمقياس التوافق المهني، في كانت قيمة معامل الإلتواء لمقياس حيث بلغ (0.210)**spss**الاحصـــائي الإبداع الوظيفي(0.289)

9-2 الأوساط الحسابية والإنحرافات المعيارية للمقاييس الثلاثة :

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https://proximusjournal.com/index.php/PJSSPE
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قام الباحث بمعالجة نتائج المقاييس احصائياً من خلال استخدام الوسط الحسابي والانحراف المعياري والدرجة الزائية والدرجة التائية وجدول (3) يبين الأوساط الحسابية والانحرافات المعيارية للمقياسين وأبعاده لعينة البناء والتي اعتمدت في استخراج الدرجات المعيارية.

جدول(3)يبين يبين الأوساط الحسابية والانحرافات المعيارية للمقياييس الثلاثة

المقياس	الأبعاد	الوسط الحسابي	الإنحراف المعياري
جودة حياة العمل	الرضا الوظيفي	21.9	5.001
	الرفاه العام	22.6	4.98
	التوازن بين الحياة والعمل	12.5	3.83
	السيطرة على العمل	19,7	5.035
	ظروف العمل	12.3	3.032
	الإجهاد في العمل	8.01	1.89
	المجموع	96.9	23.768
التوافق المهني	طبيعة العمل	15.8	5.97
	سلوكيات العمل	16.9	4.98
	التناسب المادي	17.4	5.045
	التعامل مع الآخرين	13.7	5.65
	المجموع	63.8	21.645
الإبداع الوظيفي	إستكشاف وتوليد الفكرة	19.5	5.022
	دعم وتنفيذ الفكرة	18.7	4.99
	المجموع	38.2	10.012

3- عرض نتائج الدراسة وتحليلها ومناقشتها :

3-1-1 عرض نتائج مقياس جودة حياة العمل وتحليلها ومناقشتها :

جدول(4) يبين الوسط الحسابي والانحراف المعياري لعينة التطبيق لمقياس جودة حياة العمل

المقياس	الوسط الحسابي	الإنحراف المعياري	المستوى
جودة حياة العمل	96.9	23.768	جيد

يبين لنا الجدول أعلاه ان مستوى جودة حياة العمل لدى تدريسيي جامعة ذي قار قد حصل على وسط حسابي (89.01) وإنحراف معياري (23.768) وبذلك أصبح بالمستوى (جيد) .

جدول(5) يبين المستويات والدرجات المعيارية المعدلة والدرجات الخام لمقياس جودة العمل

المستويات	الدرجات المعيارية	الدرجات الخام	العدد	النسبة المئوية
جيد جدا	68-80	119-125	19	23.7%
جيد	6756-	87-118	37	46.2%
متوسط	5544-	64-86	12	15%
مقبول	4332-	47-63	7	8.7%
ضعيف	3120-	25-46	5	6.2%

حصول جامعة ذي قار المستويات ومنها أن إدارة الفرص لعكس التدريسين بالمهام وتشجع على تطوير العمل وتعمل أساليب حديثة التدريب والتطوير مما يسمح لهم بتحقيق أهدافهم وغاياتهم بالعمل للوصول الى مرحلة الرضا عن عملهم,وكذلك أنهم يتمتعون بحياة قريبة عما حلموا به ويعزو الباحث التدريسيين في على هذه لعدة أمور الجامعة تتيح مواهب المكلفين الأدارية مساعيهم في وتحسين طرق على توفير لغرض

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 3, March, 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

وإنهم سعداء في آليات العمل الذي يسير بشكل جيد عادةً,ناهيك عن السهولة في التعبير عن آرائهم وبنفس الوقت ان هذه الآراء فعالة في التغييرات التي تحصل على مستوى الجامعة وأنشطتها مع إشراكهم في عملية صنع القرارات,فضلا عن أن ظروف عملهم المرضية وإن إدارة الجامعة توفر الإحتياجات اللازمة لإداء العمل مع توفير بيئة العمل الآمنة الى حد ما,والتي تلقي عن كاهلهم الشعور بضغط العمل وبالتوتر النفسي جراء عملهم وتنفيذهم لواجباتهم,وهذا ما يشير إلية "فجودة حياة العمل هي ليست فقط آراء الموظفين ومواقفهم وتوقعاتهم عن وظائفهم، بل هي توفير كل شروط رضا الموظفين واحتياجاتهم الوظيفية، وكذلك تصورهم لهذا الارتياح"[1]

3-1-2 عرض نتائج مقياس الإبداع الوظيفي وتحليلها ومناقشتها :

جدول(6) يبين الوسط الحسابي والانحراف المعياري لعينة التطبيق لمقياس الإبداع الوظيفي

المقياس	الوسط الحسابي	الإنحراف المعياري	المستوى
جودة حياة العمل	38.2	10.012	جيد

جدول (7) يبين المستويات والدرجات المعيارية المعدلة والخام لمقياس الإبداع الوظيفي

المستويات	الدرجات المعيارية	الدرجات الخام	العدد	النسبة المئوية
جيد جدا	68-80	43-50	14	17.07%
جيد	6756-	20-42	41	51.25%
متوسط	5544-	19-33	13	16.25%
مقبول	4332-	18-23	8	10%
ضعيف	3120-	10-17	4	5%

ويفسر الباحث حصول التدريسيين في جامعة ذي قار على هذه المستويات التدريسين يسعون الى لعدة أمور ومنها أن جامعتهم التي يعملون تحسين أدائهم لتطوير وإتباع الأساليب بها عن طريق دراسة الحديثة لمواكبة والتقنيات والأدوات التطور الحاصل في العالم وعن طريق تخصيص جزء من أوقاتهم للمساعدة في الأعمال تخصها والتي ليست من ضمن أعمالهم الرسمية للتوصل الى أفكار جديدة وبدعم من إدارة الجامعة ,فضلا عن أنهم دائمي السعي لتشجيع زملائهم في العمل على تقديم الأفكار الإبداعية وتبنيها وبإستمرار فضلا عن مساهمتهم الفعالة في تنفيذ الأفكار الجديدة فضلاً عن تقديمهم للأفكار الإبداعية التي تحسن وتطور الأداء وصولا إلى تحقيق الميزة التنافسية وهذا ما يؤكده الحسيني "لا يتحدد الإبداع بمدخلات النظام فحسب (الأفراد و الجماعات)، بل يتحدد بالعمليات الإبداعية أيضا كإدارة الإبداع و السياق الإبداعي و الظروف التي يجري فيها الإبداع"[2].

3-1-3 عرض نتائج مقياس التوافق المهني وتحليلها ومناقشتها :

جدول(8) يبين الوسط الحسابي والانحراف المعياري لعينة التطبيق لمقياس التوافق المهني

المقياس	الوسط الحسابي	الإنحراف المعياري	المستوى
التوافق المهني	63.8	21.645	جيد جدا

جدول (9) يبين المستويات والدرجات المعيارية المعدلة والدرجات الخام لمقياس التوافق المهني

المستويات	الدرجات المعيارية	الدرجات الخام	العدد	النسبة المئوية
جيد جدا	68-80	63-75	17	21.25%
جيد	6756-	51-62	39	47.75%
متوسط	5544-	37-50	13	16.25%
مقبول	4332-	24-36	7	8.75%
ضعيف	3120-	15-23	4	5%

من خلال الجدول أعلاه يتضح للباحث وعلى ضوء مستويات العينة أن التدريسيين في جامعة ذي قار لديهم القدرة على التوافق مع طبيعة العمل في مختلف العوامل التي تحيط بهم في بيئة العمل وتوافقهم مع التغيرات التي تطرأ على هذه العوامل على فترات مختلفة من الزمن وكذلك توافقهم مع رئيسهم في العمل والمشرف عليه ومع زملائهم فضلا عن توافقهم مع مطالب انفسهم وميولهم ومزاجهم وتوافقهم مع الظروف المتغيرة والخاصة بالعمل والذي يعكس أهمية التوجيه الإداري من قبل إدارة الجامعة والمؤثر بصورة كبيرة على إستحاث سلوكيات العمل وتعديلها بالإتجاه الإيجابي الذي يخدم إنجاز أهداف المؤسسة التعليمية وذلك من خلال القيادة الجيدة والاتصال الفعال وتوفير الدافعية

[1] أشتيوي،محمدعبد :**إتجاهات العاملين نحو جودة حياة العمل**،مجلة جامعة القدس المفتوحة،غزة،مجلد(1)،العدد(3) ،(2015)،ص21.

[2] الحسيني، فلاح حسن عداي,**الإدارة الاستراتيجية**، ط1، دار وائل للنشر، عمان، الأردن,2000،ص231.

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 3, March, 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

وإستمراريتها وتوفير ظروف مادية ونفسية وإجتماعية ملائمة تؤثر إيجاباً في سلوك التدريسيين وتركيزهم في العمل,فضلا عن أهمية التناسب المادي مع طبيعة العمل و تناسبه مع متطلبات الحياة فالعمل هو المصدر الأساسي للدخل بالنسبة للتدريسي ، فهو يؤمن له حياة كريمة فبالتالي هو يلتزم تجاه مؤسسته إلتزاما معياريا ويظهر ذلك من خلال أدائه لعمله وكفاءته المهنية، وتحقيق العامل لهذا الاستقرار يرتكز على ضرورة وجود جو مريح ومرضي داخل المؤسسة التي يعمل بها، حتى يتسنى له بذل الجهد اللازم من اجل انجاح عمله الذي يعود عليه وعلى المؤسسة -المهنية وبيئته العامل والانسجام بين التلاؤم من والمجتمع بالرضا والرفاهية المادية,وهذا ما تؤكده سعيدة عن أهمية التوافق المهني "فهو حالة وتحسين عمله في التقدم على وقدرته ،)والزملاء المشرفين(ومرضيا للآخرين عن أدائه المهني، راضيا تجعله والتي -والاجتماعية المادية العمل"[3]. في التقدم وفرص الترقية والتطور، الإشراف، الزملاء ، مع العلاقة العمل، طبيعة خلال من قياسه والذي يمكن باستمرار مهاراته

2-3 أولا: علاقات الارتباط بين متغيرات الدراسة و العلاقات التأثيرية المباشرة :

1- علاقة الإرتباط بين متغير جودة حياة العمل ومتغير الابداع الوظيفي علاقة طردية قوية بالنظر لقيمة مستوى الدلالة .

جدول (10)

المتغيرات	علاقة الإرتباط	مستوى الدلالة	عدد العينة
جودة حياة العمل الإبداع الوظيفي	0.399**	0.000	40

2- علاقة الإرتباط متغير التوافق المهني ومتغير الإبداع الوظيفي علاقة طردية قوية بالنظر لقيمة مستوى الدلالة.

جدول (11)

المتغيرات	علاقة الإرتباط	مستوى الدلالة	عدد العينة
التوافق المهني الإبداع الوظيفي	.613**0	0.000	40

ثانيا : العلاقات التأثيرية : اعتمد الباحث في اختبار فرضيات التأثير المباشرة بالاعتماد على النموذج الهيكلي Structural Model باستخدام معادلة النمذجة الهيكلية عن طريق استخدام برنامج (Smart PLS. V.20).

أولا: العلاقة التأثيرية بين جودة حياة العمل ---><-- الابداع الوظيفي.

جدول (12)

جودة المطابقة SRMR	المسار	VIF	T value	P value	حجم التأثير f^2	S.R.W	معامل التحديد R^2
0.069	جودة العمل ><-- الابداع الوظيفي	1	2.787	0.006	0.235	0.394	0.156

وهذا يفسر بأن هناك تطابق مقبول للنموذج (0.08) اقل من (SRMR)يبين جدول (12) بأن قيمة معيار الجذر التربيعي المتوسط الموحد) وبذلك تأكيد على عدم وجود إرتباط 5 (1) وهي اقل من((VIF)لدراسة العلاقات التأثيرية بين المتغيرات المبحوثة , وكانت قيمة قيمة) وهي أكبر من(1.96) عند مستوى معنوية قدره (0.05) وهذا يشير (2.787) tخطي متعدد بين المتغيرات المستقلة , بينما كانت قيمة (إلى معنوية الإرتباط , وكانت قيمة معامل التفسير (0.156) وهي قيمة كبيرة تشير الى قدرة المتغير المستقل (جودة حياة العمل)على تفسير) للمتغيرات المستقلة في المتغير التابع لوهي 0.235) ((f^2 التغيرات التي تحدث في المتغير التابع(الإبداع الوظيفي), وكانت قيمة حجم التأثير) فهو حجم تأثير كبير لمساهمة كل متغير مستقل .0.35أكبر من (

ثانيا : العلاقة التأثيرية بين التوافق المهني ---><-- الابداع الوظيفي.

جدول (13)

[3] سعيدة بن غربال: **الذكاء المهني، بالتوافق وعلاقته العاطفي** رسالة ماجستير، منشورة غير كلية العلوم والاجتماعية، الإنسانية محمد جامعة ، 2015 ، ص15. الجزائر خضير، بسكرة،

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معامل التحديد R^2	S.R.W	حجم التأثير f^2	P value	T value	VIF	المسار	جودة المطابقة SRMR
0.381	0.617	0.616	0.000	7.954	1	التوافق المهني<-> الابداع الوظيفي--	0.064

وهذا يفسر بأن هناك تطابق مقبول للنموذج (0.08) اقل من (SRMR)يبين جدول (13) بأن قيمة معيار الجذر التربيعي المتوسط الموحد) وبذلك تأكيد على عدم وجود إرتباط خطي 5 (1) وهي اقل من((VIF)لدراسة العلاقات التأثيرية بين المتغيرات المبحوثة , وكانت قيمة) (7.954) وهي أكبر من(1.96) عند مستوى معنوية قدره (0.05) وهذا يشير إلى tمتعدد بين المتغيرات المستقلة , بينما كانت قيمة ( ) وهي قيمة كبيرة تشير الى قدرة المتغير المستقل (التوافق المهني)على تفسير 0.381معنوية الإرتباط , وكانت قيمة معامل التفسير ( ) للمتغيرات المستقلة في المتغير التابع وهي 0.617) ((f^2 التغيرات التي تحدث في المتغير التابع(الإبداع الوظيفي), وكانت قيمة حجم التأثير) فهو حجم تأثير كبير لمساهمة كل متغير مستقل .35.0أكبر من (

ثالثا : العلاقة التأثيرية التفاعلية لمتغير جودة حياة العمل في العلاقة بين التوافق المهني والابداع الوظيفي .

جدول (13)

معامل التحديد R^2	S.R.W	حجم التأثير f^2	P value	T value	VIF	المسار	جودة المطابقة Chi-Square
0.731	0.135	0.411	0.031	2.166	1	التأثير التفاعلي لجودة العمل	0.228

وهذا يدل ان المتغيرات المستقلة قادرة عن طريق (R^2 =0.731)يتبين من الجدول الآنف الذكر ان القدرة التفسيرية لأنموذج التفاعل قد بلغت (P= من التغيرات التي تحصل في المتغير المعتمد, وان قيمة المعنوية المحسوبة لنموذج التفاعل بلغت (73%)عملية التفاعل تفسير ما نسبته وهي قيمة معنوية (0.135) مما يدل معنوية نموذج التفاعلي, اما دور متغير التفاعل في الانموذج فيتمثل في قيمة الانحدار التي بلغت (0.031 الذي ادخله جودة حياة العمل (f^2) وان مقدار حجم التأثير (0.031) وهي قيمة معنوية عند مستوى (2.166) المحسوبة بلغت (t)لان قيمة وهو مستوى تأثير كبير وتؤكد هذه النتيجة على الدور التفاعلي (المعدل) (0.411)بتفاعله مع التوافق المهني في الابداع الوظيفي قد بلغ لجودة حياة العمل في تعزيز التأثير لمتغير التوافق المهني على الابداع الوظيفي للتدريسيين على مستوى جامعة ذي قار .

وتأسيسا على ما سبق يتضح أن لدى الأفراد المدروسين موقفاً إيجابياً تجاه حقيقة وجود بيئة عمل مناسبة إذ يتضح أن إدارة الجامعة لديها تركيز لا بأس به على الأنشطة والسياسات التي يمكن أن تعزز من متطلبات البيئة المادية والتعليمية التي يجب توافرها لتحقيق النجاح في مجال عملها رغم الظروف وقلة التخصيصات تجاه إحتياجاتها إلا أن الوضع القائم لم يمنعها من العمل قدر المستطاع لتوفير بيئة عمل تتمتع بجودة مستوى مقبول ، وإن التدريسين يملكون تصور بمستوى مرتفع عن مدى إهتمامهم بإشعارهم بالاحترام والتقدير بما يقدموه من تنفيذ لمتطلبات العمل، بحيث يشعر التدريسين بان بيئة العمل تحقق لهم جانباً جيداً من الرفاه وتمثل ما خطط له وتمنى أن يحققه في حياته، فالتدريسي في الجامعة لديه اطمئنان نفسي بانه فرد مؤثر في مجريات عمل الجامعة وهذا ما يؤكده البليسي"ومن محور تحقيق الاستفادة للمنظمة والعاملين فقد عُرفت انها السياسات والاجراءات والعمليات التي تنفذها المنظمة بهدف تطوير وتحسين جودة الحياة الوظيفية، والشخصية للعاملين فيها، والذي ينعكس بدوره على أداء المنظمة، والافراد إيجابياً، وبذلك تتحقق أهدافها وتطلعاتها، وفي الوقت نفسه تلبي وتشبع رغبات عامليها، مما يضمن استمرارية نجاح المنظمة، وحصانتها ضد الكثير من الأزمات"[4]، فضلا عن أنه تتوافر في التدريسين القدرة المرتفعة على تشكيل مجموعة كبيرة وواسعة من السلوكيات والادوار في المواقف المختلفة لغرض أداء متطلبات العمل ، أي ان التدريسين لا يقتصرون على ممارسة سلوك محدد بنمط معين في التعامل مع المواقف و الافراد بمختلف المسميات فهم يلجؤون الى محفظة واسعة من السلوكيات التي يركز بعضها على تقديم الأفكار الإبداعية و تنفيذها لأداء المهام الرئيسية و الرسمية وأخرى تهتم بدعم مجال العمل عن طريق الجوانب الاجتماعية وغيرها بحيث يشكل هاجس التفوق و الابداع في أداء المهام الوظيفية وهذا ما أشار إليه أبو زيد " ومن المفيد جدا قيام الإدارات بتنمية المهارات الإبداعية في عملية توقع المشاكل مع إيجاد الحلول لها تحسباً للمستقبل وهذا هو من الابداعات الوظيفية في مستوياتها العالية التي تحقق

[4] البليسي، أسامة زياد يوسف : **جودة الحياة الوظيفية واثرها على الأداء الوظيفي للعاملين** ، رسالة ماجستير(غير منشورة)، الجامعة الإسلامية،غزة،2012,ص7.

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https://proximusjournal.com/index.php/PJSSPE
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إبداعية المنظمة"[5]، ناهيك عن إدراكهم بأن التوافق المهني ليس مفهوماً أحادي البعد ولكنه مفهوم متعدد المجالات بما يجسد طبيعة التعامل مع الاخرين داخل الجامعة وجماعة العمل ، فضلا عن رضاهم عن الرؤساء الذي يخضعون لإشرافهم وكذلك المؤسسة أو البيئة التي يعمل فيها، والرضا عن تعاملهم مع زملائهم ، كل ذلك يخلق لديهم حاة من الشعور بالإرتياح والإطمئنان النفسي تجاه إنجاز أعمالهم وتتملكهم العزيمة مجال الاجتماعية ببيئته الشخص تكييف بأنه والإرادة والجهد الكبير الإيجابي تجاه المؤسسة التي يعملون بها,وهذا ماتؤكده " كما يعرف على حياته التأثير ذات والخلقية والسياسية الاقتصادية بيئته ومعايير ومجتمعه، بأسرته لعلاقات التي ترجع الاجتماعية، حياته مشكلات المهنية"[6] .

الإستنتاجات والتوصيات

أولا : الإستنتاجات :

1- كانت نتائج المستجيبين مرتفعة فيما يخص جودة حياة العمل حيث ان التدريسيين يملكون تصور بمستوى مرتفع عن مدى اهتمام إدارات الكليات.
2- تسهم جودة حياة العمل في تفسير وتعزيز الابداع الوظيفي لدى التدريسين بمستوى جيد.
3- يسهم التوافق المهني في تفسير التغيرات الحاصلة في الابداع الوظيفي .

ثانيا : التوصيات :

1- دعوة إلى إدارة المتمثلة برئيس الجامعة والمساعد الإداري إيلاء المزيد من الاهتمام بجودة حياة العمل لدورها الأساسي في تعزيز السلوكيات الإيجابية في مجال العمل ومن ضمنها السلوك الإبداعي للتدريسين، عن طريق التركيز المناخ التنظيمي الملائم .
2- أهمية التركيز على ظروف العمل الداخلية عن طريق العمل على إرساء قواعد متينة لتعزيز مستوياتها ومستوى العمل بها وإدراكها من قبل التدريسين عن طريق بناء ثقافة تنظيمية قائمة على تطوير متطلبات العمل المادية والنفسية.
3- تعزيز التوافق المهني الذي يعد من المؤشرات المهمة في جودة الأداء من إيجاد عوامل التكيف للتدريسي مع البيئتين الداخلية والخارجية.

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[5]) أبو زيد، خالد ذيب حسين :**أثر القوة التنظيمية على الابداع الوظيفي للعاملين**، رسالة ماجستير (غير منشورة)، قسم إدارة الاعمال، كلية الاعمال، جامعة الشرق الأوسط، عمان،2010 ,ص39.

[6]) هدي سلام :**الإدارة الصفية وعلاقتها بالتوافق المهني لأستاذ التعليم الثانوي**، مجلة العلوم الاجتماعية، الرياض، السعودية ، 2014،ص 156 .

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

IMPROVING THE PHYSICAL FITNESS OF CADETS OF THE ACADEMY OF THE REPUBLIC OF UZBEKISTAN WITH THE HELP OF CROSSFIT TOOLS AND METHODS

Mirzakulov Akrom Gafurjanovich
Senior teacher of Combat and physical training
Ministry of Internal Affairs of the Academy of the Republic of Uzbekistan
e-mail: akrom.mir@1988gmail.com

Annotation. The widespread introduction of physical culture and sports into the lifestyle of a modern person is currently acquiring important social and hygienic significance. This is due to the peculiarities of modern civilization, which creates conditions for a sharp restriction of motor activity in everyday life and work – the most important stimulator of vital processes. The main value of physical culture and sports, especially in our time, is the creation of the ideal of a decent lifestyle and the image of a harmoniously developed person. Our physical education system has a set of preventive and hygienic measures aimed at the comprehensive development and maintenance of physical performance and motor activity of people for many years to come.

Keywords: crossfit, physical culture, sport, healthy lifestyle, cadet, psychophysiology, health

In recent years, physical culture and sports have been steadily, albeit slowly, entering the life of the people. Mass forms of physical culture undoubtedly help to solve the problems of health improvement, increase physical fitness, and, consequently, some socio-economic problems.

In modern science, physical culture is considered an objective need of society, has an extensive structure and performs the following main functions: health-improving, preventive, economic, educational, political, cultural and entertainment. The role of physical culture and sports in the formation of a healthy lifestyle is great. According to a number of scientists, the health-improving potential of physical culture and mass sports, if fully utilized, would ensure a steady increase in performance, prevent mass diseases and achieve an increase in life expectancy.

Solving the problem of forming a healthy lifestyle by means of physical culture and sports is especially important for such a group of young people as cadets of educational institutions of the Ministry of Internal Affairs, where various physical education and sports activities fully contribute to the development of such important personality qualities as perseverance, determination, will, hard work, determination, help get rid of bad habits.

At the moment, the attention of researchers has also increased to the development of the problem of forming a healthy lifestyle of young people by means of physical culture and sports as the most effective, contributing to the development of positive behavioral traits of a healthy lifestyle. By highlighting the problems of physical culture and sports, modern research contributes to the development of a scientific worldview of a methodically correct attitude to physical culture and sports, understanding the connection of this area with the vision of a healthy lifestyle. Physical culture at the end of the 20th century is increasingly recognized as almost the only means of a non-utilitarian plan capable of ensuring physical perfection, general and special readiness of a person to perform the most important socially conditioned functions (labor, intellectual, defense), successfully

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Volume 1, Issue 3, March, 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

combat hypokinesia and eliminate the imbalance between the body's need for movement and the real motor regime under the existing image life. In general, it is aimed at using everything that contributes to the full-fledged development of the individual, realizes the possibilities for everyone to achieve physical perfection and long-term health preservation, provides physical preparation for creative work and other socially necessary activities.

The problem of a healthy lifestyle in the conditions of modern social, environmental and radiation conditions is becoming increasingly relevant in the theory and methodology of physical education. Solving the problem of forming a healthy lifestyle by means of physical culture and sports is especially important for such a group of young people as cadets of educational institutions of the Ministry of Internal Affairs. The formulation of the problem of a healthy lifestyle in the field of vocational training of cadets of educational institutions of the Ministry of Internal Affairs is not accidental, because a modern specialist should differ not only in a high level of professional training, but also in good health. In this case, physical culture and sports become the most important factors in ensuring a high functional state of the body, optimal intellectual performance and the formation of professionally valuable personal qualities.

Considering the above, it should be noted that, firstly, the processes of formation and functioning of a healthy lifestyle and physical culture of cadets of educational institutions of the Ministry of Internal Affairs have a certain specificity; secondly, physical culture and sport act as one of the components of a favorable socio-psychological atmosphere in the learning process and actively influence the full development of the personality of a future employee.

At the same time, the mass media acquire special importance as a factor of management, education, and informing about a healthy lifestyle.

The most topical and important are socio-pedagogical tasks, the solution of which contributes to the formation of such important personality qualities as self-organization, spiritual needs, sustainable interests and others.

However, along with the fact that a healthy lifestyle is given a large place in scientific research, there is still a vital practical question of how to become healthy and remain so for quite a long time.

It is necessary to note the social importance of physical culture and sports as an effective means of strengthening mental and physical health, the economic and defense potential of the country, rational, cultural spending of free time, meeting the spiritual needs of cadets of educational institutions of the Ministry of Internal Affairs.

In conclusion, it should be noted that physical education is of great importance in the formation of a harmoniously developed personality who takes his state of health seriously. The process of physical education, aimed at the physical perfection of the individual, allows you to become spiritually richer, morally physically healthier, more perfect. Currently, physical education is one of the necessary elements of the general system of youth education, solving practical goals and objectives: preparing young people for work (production) activities, to defend their Homeland. Opportunities to engage in physical culture and sports, constantly improve their health in our country are given to every person from childhood to old age.

It should be noted that the transformation of moral beliefs among those engaged in physical education and sports into strong, everyday, healthy norms of behavior is not brought up by sport and physical culture itself, but first of all experienced, literate, spiritually and morally mature teachers and coaches, the entire team in which a personality is formed.

Physical education and sports in such a team obliges those involved not only to overcome difficulties that arise on the way to achieving the goal, to comply with the norms of moral behavior established in sports, but also to abandon bad habits incompatible with the goals of health promotion.

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https://proximusjournal.com/index.php/PJSSPE
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A large number of scientific and methodological works emphasize the importance of every coach, teacher, teacher, educator being able to instill in his students the right view of physical culture and sports, to teach them to look at sports as something wonderful, very important and necessary for a healthy lifestyle.
All this indicates that life itself urgently requires the widespread use of physical education, physical education and sports in the entire range of activities related to increasing the effectiveness of the formation of a healthy lifestyle for young people.

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Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 3, March, 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

FOLLOW-UP STUDY OF THE COMPOSITE SKILL PERFORMANCE DURING THE SPECIAL PREPARATION PERIOD FOR ADVANCED FOOTBALL PLAYERS

Wisam Hameed AbdulRidha
General Directorate of Education in the province of Maysan, Ministry of Education , Iraq.
Wisamhameed117@gmail.com
Mustafa AbdulZahra Abbood
University of Misan, College of Physical Education and Sports Sciences, Iraq
mustafa.a.z@uomisan.edu.iq

Abstract
The objective of the study was to analyze the variations in the performance of complex skills among advanced Dijlah Sports Club football players during the special preparation period. This was done by conducting three repeated measurements with time intervals. The study also included the comparison of human field performance with advanced Dijlah Sports Club football players. The research period spanned from October 5, 2023, to July 22, 2023. The researchers employed a descriptive approach with repeated measurements to conduct their study. The research sample consisted of 20 players. The researchers administered complex skill performance tests and analyzed the data using the SPSS system. The findings indicated that the approach implemented by the trainer was suitable for the research sample. Furthermore, the results demonstrated a significant improvement in the compound skills of the participants, particularly in the third test. The researchers advised coaches to prioritize interdisciplinary testing due to their influence on assessing the effectiveness and appropriateness of the method employed for the players.
Keywords: Composite Skill, Performance, Special Preparation, Football Players

Introduction

The global advancement in sports across all countries is not a random occurrence, but rather a result of deliberate studies and research aimed at attaining the status of developed nations, achieving notable accomplishments, and winning championships (Weinberg & Gould, 2023). This serves as an indicator of a country's progress and urban development (Breda et al., 2018). It is crucial to focus on all stages of preparation (public, special, and competitions), as these stages are interconnected, particularly during the special preparation phase (Patatas et al., 2022). This phase requires mastery of complex skills due to its significance in defensive and offensive positions during competitions (Mitchell, Oslin & Griffin, 2020). Every team requires a multitude of tests to assess the players' current condition, including repeated measurements that offer coaches insights into their physical, technical, physiological, and psychological development (Till et al., 2023). These evaluations can only be achieved through standardized tests conducted at various intervals (Chaabene et al., 2018). Additionally, these tests help determine the effectiveness of the coaching curriculum (Fransen et al., 2018). Therefore, it is crucial to conduct research by administering challenging skill tests at specific times during the special preparation period. This research aims to determine the level of skill development resulting from the curriculum designed by the trainer. The curriculum acts as a guide for the

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https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

trainer before entering the competition period and helps evaluate the effectiveness of the training program. Additionally, it allows for adjustments to be made to the training loads related to the skill aspect.

Research Problem:

Given the importance of this topic, the researchers decided to identify the situation reached by the players and know their levels through some standardized follow-up skill tests. This will be a scientific evaluation that benefits from it. Field researchers of the game of football, who include former players and coaches as well as university professors, noticed that coaches aren't very interested in standardized follow-up tests, which indicate the extent to which players have developed their skill performance and the efficiency of their training schedule. All parties involved, including players and coaches.

Research Objectives

1. Identify the differences between the three follow-up tests for complex skill performance in the special preparation period for advanced football players.

Research Hypotheses

1. There are statistically significant differences between the three follow-up tests of composite skill performance in the special preparation period for advanced football players.

Research Areas

Human Area: A sample of the advanced players of the Tigris Football Club and the number of (20) players.
Time Area: Dijlah Football Stadium.
Spatial Area: Period from (10/5/2023) to (22/7/2023).

Research Methodology and Field Procedures:

Research Methodology:

The method is the scientific path followed by the researchers to solve a particular problem and that the research methodology fits with the objectives and the problem to address it and therefore the researchers used the descriptive approach in the style of correlational and predictive studies.

Research community and sample:

One of the things that must be taken into account in the field of research is the selection of the sample that represents a real representation of the research community, as it is "the part that represents the community of origin, or the model on which the researchers conduct the entirety and the focus of their work on it" [(2)].

The research sample was represented by the players of the Tigris Sports Club in youth football, which numbered (25) players, and the researchers conducted the exploratory experiment on (5) players from outside the research sample, so that the final research sample became (20) players.

Means of gathering information, devices and tools used:

Means of collecting information:

- Scientific sources (Arab and foreign).
- Observation.
- Testing and measurement.
- Internet.
- Auxiliary staff.
- Information registration forms.

Devices and tools used:

The researchers used the following devices and tools: (electronic clock number (1), electronic manual computer number (1), electronic computer number (1), legal football number (10), sign number (5), whistle, terraces number (2), football field, tape measure, handball goal placed inside the big goal.

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Identification of complex skill performance tests:
The researchers adopted the composite skill performance tests:

1. Receiving, running and scoring tests (Sawyer et al., 2002).
2. Receiving, dribbling and scoring tests (Kelly et al., 2020).
3. Receiving, running and handling tests (Buchheit et al., 2013).

Exploratory Experiment:
The exploratory experiment was conducted on a sample of (5) players from the Tigris Sports Club, in order to find out the time taken to carry out the tests, the difficulties that the researchers may face, and to know the possibility of the assistant work team, as well as the time taken by the tests.
Main experience:
The researchers applied the tests to the main research sample of (20) players under the same conditions in the exploratory experiment; the period between one test and the last (10) days was three follow-up tests.
Statistical media:
The ready-made statistical kit (SPSS) (vr21) was used for statistical treatments:
Presentation, analysis and discussion of results:
Presentation, analysis and discussion of the results of tests of some skill variables of the three tracking measurements of advanced football players**:**
The researchers presented the statistical features of the three traceability measurements of the values of the results of the composite skill tests, as shown in the grandfather (1), (2) and (3).

Table 1: Shows the values of the statistical features of the three tracer measurements in the results of the composite skill tests

Variables	Unit of Measurement	First test		Second test		Third test		Contrast smoothing (Leven)	Sig
		M	SD	M	SD	M	SD		
Receiving, running and scoring	**Second**	7.87	0.605	7.21	0.367	5.79	0.625	2.83	0.067
Receiving, dribbling and scoring	**Second**	7.61	0.871	6.93	0.463	5.57	0.760	2.14	0.126
Receiving, running and handling	**Second**	7.81	0.678	6.99	0.406	5.59	0.748	2.04	0.138

n = 20, non-significant and homogeneous when the significance level is greater than (0.05).
The results of Table (1) showed that the values of the arithmetic mean and the standard deviation of the results of the research sample in the variable measurement test (receiving, running and scoring) the first amounted to (7.872, ± 0.605), and in the second tracking test the arithmetic mean and deviation became standard (7.211, +0.367), and in the third tracer test the arithmetic mean became (5.799 ± , ±0.625 the value of homogeneity of variance between the three measurements of this test (2.831) with a score of (Sig) (0.067), which is not a function at the level of significance (0.05), which indicates the homogeneity of the variance of the three tracer measurements, and is thus ready for tracer comparison for one sample. The values of the arithmetic mean and standard deviation of the results of the research sample in the variable measurement test (receiving, dribbling

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and scoring) the first amounted to (7.614, + 0.871), and in the second tracer test the arithmetic mean and standard deviation became (6.934, ± ± 0.463), and in the third tracer test, the arithmetic mean became (5.578 , ± 0.760), and the value of homogeneity of the variance between the three measurements of this variable was (2.146) by a degree (Sig) (0.126), which is not a function at the significance level (0.05), which indicates the homogeneity of the variation of the three tracer measurements and is thus ready for tracer comparison for one sample. The values of the arithmetic mean and standard deviation of the results of the research sample in the variable measurement test (receiving ±, running and handling) the first amounted to (7.814, + 0.678), and in the second tracer test the arithmetic mean and standard deviation became (6.993, ± 0.406), and in the third tracer test, the arithmetic mean became (5.590, ± 0.748), and the value of homogeneity of variance between the three measurements of this variable was (2.048) by a degree (Sig) (0.138) is not a function at the level of significance (0.05), which indicates the homogeneity of the variation of the degrees of tracer measurements of the three tracers and is therefore ready for tracer comparison for one sample. In order to identify the differences in the three tracer measurements for each of the tests studied, their results were processed with the (F) test for repeated measurements of comparisons between the results of the same sample (Orthogonal Comparisons) as shown in Table (2).) and then analyzed:

Table 2: Shows the results of the (F) test for repeated measurements between the three tracer measurements in the composite skill tests

Variables	Source	SS	df	MS	F	Sig	Impact size
Receiving, running and scoring	Between groups	44.853	2	22.42	104.79	0.000	0.847
	Within groups	8.122	38	0.214			
Receiving, dribbling and scoring	Between groups	42.999	2	21.49	56.72	0.000	0.749
	Within groups	14.417	38	0.379			
Receiving, running and handling	Between groups	50.611	2	25.30	85.20	0.000	0.817
	Within groups	11.301	38	0.297			

n = 20 , number of measurements per test (3), significance level (0.05) (duplicate (**F**) value **calculated function if the degree (Sig)≤ (0.05)**

The results presented in Table 2 indicate that the sum of squares between the measurements was 853, while the error within the measurements was 8.122. The average squares between the measurements amounted to 22.427, with a degree of freedom of 2. Additionally, the error within the measurements was 214.0. With a degree of freedom of 38, the calculated value of F for repeated measurements was found to be 799.104, which is below the significance level of 0.000. This indicates that there is a significant difference at a significance level of 0.05. Furthermore, the effect size between the three measurements (receiving, running, and scoring) in the test was determined to be 0.847. In the assessment of the exam, which included receiving, dribbling, and scoring, the total of the squared differences between the measurements was 999.The error within the measurements was 8.122, and the average squares between the measurements was 21.499 with 2 degrees of freedom. The total error within the measurements was 379.0. With a degree of freedom of 38, the calculated value of F for repeated measurements was found to be 726.56, which is below the significance level of 0.000.

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This indicates that there is a significant difference at a significance level of 0.05. Additionally, the effect size between the three measurements (receiving, dribbling, and scoring) in the test was 0.749. In the variable test, the sum of the squares between the measurements was 611, and the error within the measurements was 11.301. The average squares between the measurements was 25.306, with a degree of freedom of 2. The error within the measurements was 297.0. With 38 degrees of freedom, the calculated value of F for repeated measurements was found to be 205.85, which is below the significance level of 0.000. This indicates that there is a significant difference at the 0.05 level of significance. Additionally, the effect size between the three measurements (receive, run, and handling) in the test was found to be 0.817. Since the calculated values of (F) for repeated measurements of each of the three compound skill variables were statistically significant, the researcher intentionally conducted the Sidak test to assess the significance of this finding. The Sidak test compared the tracking arithmetic means of one sample with the values in Table (3).

Table 3: Shows the results of the Validity test for the significance of the differences between the arithmetic means of the three tracer measurements in the composite skill.

Variables		Teams' results Mediums	Sig
Receiving, running and scoring	1 - 2	*0.661	0.001
	1 – 3	*2.073	0.000
	2 – 3	*1.412	0.000
Receiving, dribbling and scoring	1 - 2	*0.680	0.012
	1 – 3	*2.037	0.000
	2 – 3	*1.357	0.000
Receiving, running and handling	1 - 2	*0.822	0.000
	1 – 3	*2.225	0.000
	2 – 3	*1.403	0.000

*** The difference is significant at the level of significance (0.05), n = (20)**

Table (3) demonstrates that the difference in the arithmetic means between the first and second measurements is 0.661, with a significance level of 0.001. This indicates that there are significant differences between the two measurements, favoring the second one. Similarly, the difference in the arithmetic means between the first and third measurements is 2.073, with a significance level of 0.000. This suggests significant differences between the first and third measurements, favoring the third one. Lastly, the difference in the arithmetic means between the second and third measurements is 1.412, with a significance level of 0.000. This indicates significant differences between the second and third measurements, favoring the third one. Based on the findings of the three tracking measurements (receiving, running, and scoring), we can infer that advanced player show a gradual improvement in their skill performance during the special preparation period. The difference in the arithmetic means between the first and second measurements was found to be 0.680, with a significance level of 0.012. This indicates that there are significant differences between the two measurements, favoring the second one. Similarly, the difference in the arithmetic means between the first and third measurements was 2.037, with a significance level of 0.000. The data shows that there are notable disparities between the first and third measurements, favoring the third measurement. Additionally, the difference in the average values between the second and third measurements is 1.357, which is statistically significant at a level of 0.000. This suggests that there are significant differences between the second and third measurements, with the third measurement being favored. Based on the findings of the three-tracking metrics (receiving, dribbling, and scoring), we can infer that advanced athlete show a gradual improvement in their skill performance during the period of special training. The difference in the arithmetic means between the first and second

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measurements was 0.822, with a significance level of 0.000. This indicates a significant difference in favor of the second measurement. Similarly, the difference in the arithmetic means between the first and third measurements was 2.225, also with a significance level of 0.000. The results indicate significant differences between the first and third measurements, with the third measurement being favored. Additionally, the difference in arithmetic means between the second and third measurements was 1.403, which is statistically significant at a level of significance of 0.000. This suggests that there are significant differences between the second and third measurements, with the third measurement being favored. Based on the findings of the three tracer measurements (receiving, running, and handling), we can infer that advanced player show a progressive improvement in their skill performance during the period of special training.

Discuss the results of the three track tests of the composite skill performance of advanced footballers:

The previous tables demonstrate the moral outcomes achieved, indicating statistically significant differences in favor of the third measurement in all complex skill performance tests. This suggests that codified and pre-planned training programs assist players in enhancing their motor skills and achieving training objectives during this stage. The aim is to prepare players to reach their optimal athletic form and improve the results of specific exercises, which closely resemble competitive conditions. Throughout this period, the training load gradually increases, with a particular emphasis on intensifying special preparation exercises and competition exercises (Jayanthi et al., 2022; Skrygin et al., 2021). These exercises involve increasing the speed of performance or rhythm of movement, leading to adaptation and the advancement of complex skills for advanced football players. To ensure that the player can execute this skill at the optimal speed during matches, the coach should prioritize selecting exercises that closely resemble game situations (Silva et al., 2020). The coach should then gradually train the players on these exercises, gradually increasing the level of difficulty, so that the players become accustomed to performing the skill with the required strength and speed demanded in matches (Valerii, Mykhailo, & Taras, 2021; Mitchell, Oslin & Griffin, 2020).

Conclusions:

1. The findings indicated that the approach devised by the instructor is appropriate for the study participants.
2. The findings indicated a distinct progression in the composite abilities of the research participants, particularly in the third test.

Recommendations:

According to the results and conclusions reached by the researchers, the following recommendations were developed:

1. Coaches must prioritize the multidisciplinary exams as they provide valuable insights into the effectiveness and appropriateness of the method utilized for the players.
2. Utilizing the tests employed in the research as a measure of players' progress.
3. Performing analogous investigations for other stages based on various variables and for both genders.

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ISSN (E): 2942-9943

EFFECTS OF PLYOMETRIC TRAINING IN SAND OR RIGID SURFACE ON PHYSICAL-PERFORMANCE RESPONSES AND TESTOSTERONE CONCENTRATION IN FOOTBALL PLAYERS

Muthana Layth Hatem
University of Misan – Collage of physical Education and sport sciences
muthanna_lath@uomisan.edu.iq

Abstract:
Background: This study aimed to assess the effects of 8 weeks of plyometric training (PT) conducted on sand or a rigid court surface on physical-performance responses and testosterone concentration in football players. **Methods:** Twenty participants were randomly assigned to either the sand (n = 10) or rigid (n = 10) surface groups. Both groups engaged in identical indoor-football training regimens. Assessments included 20 m sprint times, change-of-direction tests (modified Illinois test and modified change-of-direction T-test), jumping ability, a repeated sprint T-test (countermovement, squat, and five jump tests), and static and dynamic balance. Plasma testosterone concentrations were measured concurrently with fitness assessments at the onset of the training period, following an 8-week interval, and at the conclusion of the training. **Results:** After the intervention, PT showed significantly increased sprint speed relative to PT. Change-of-direction scores also improved for PT relative to PT. Sand and rigid surfaces increased vertical jump performance (counter movement jump $p < 0.001$; ES = 0.247; squat jump, $p = 0.005$; ES = 0.170). Repeated sprint T-test scores improved in PT and sand surface compared with the rigid surface, with best times of PT > sand surface ($p < 0.05$). Both plyometric groups improved their dynamic balance ($p < 0.05$), with three parameters of PT and only one of sand surface being significantly greater than the rigid surface. Static balance was also enhanced in both experimental groups (sand surface > rigid surface). **Conclusions:** For reasons that remain to be clarified, physical-performance responses measures in football players increased more by 8 weeks of sand surface than by rigid surface, whereas at the end of the training, its concentration decreased in testosterone concentrations (33.5 ± 2.8 µg/dL). In conclusion, a significant correlation ($p < 0.0001$) was observed between testosterone concentration and maximal oxygen consumption. In the preliminary examination, a statistically significant correlation was observed between the concentration of testosterone and the results of the physical-performance responses test ($p<0.001$). Players' endocrine alterations maintained bodily homeostasis during training. Coaches and sports scientists must continually monitor players' endocrine changes to maximise player performance and prevent overtraining.
Keywords: Plyometric Training, Sand Surface, Physical-performance responses, Testosterone.

INTRODUCTION

Football is the most popular and presently most played sport in the world (Unanue et al., 2020). It is attracting an ever-increasing number of researchers interested in its myriad facets. Notably, the majority of research has focused exclusively on the performance of football athletes (Nicholson et al., 2021). Given that football games tend to have few goals scored, physical-performance reactions have major implications on the results of games

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(Kołodziejczyk et al., 2020). Thus, coaches must diligently monitor the physical-performance responses of football players to prevent injuries and ensure compliance with game regulations (Galdino, Lesch & Wicker, 2023). Football players must possess a high level of physical fitness comparable to that of football global levels to ensure optimal positioning and effective decision making during critical moments (Otte, Millar & Klatt, 2020). However, a limited body of research has specifically examined the physical-performance responses of athletes during matches. Notably, players' high-speed running distances tended to decrease during the latter stages of the match, which may indicate the accumulation of fatigue resulting from the high physical and physiological demands of the game. This result is supported by findings related to testosterone concentration and sprint performance decrement (Wing et al., 2021). Developing a football training methodology is a significant physical challenge particularly owing to the varying skill levels of players (Bradley et al., 2019). The football players of a team are subjected to physical and psychological stress owing to the intricate decision making involved in facing opponents, coaches, and spectators. This is particularly evident in high-intensity and physically demanding sports (Deuker et al., 2023). According to Kim et al. (2022), plyometric training (PT) was observed to have a positive impact on the physical performance and skill development of football players. Nonetheless, whether the aforementioned benefits can be further augmented through the implementation of training on a sand or solid surface remains a matter of interest. Previous studies have conducted a comparative analysis on the efficacy of PT on unstable surfaces, specifically on sand or rigid surfaces. Glossop-von Hirschfeld (2021) reported that prepubertal male football players exhibit similar improvements in their physical-performance measures regardless of whether they train on sand or rigid surfaces. Hammami et al. (2020) noted similar enhancements in vertical jumps, standing long jumps, and leg press in relation to sand and land-drop training. Similarly, the authors observed similar reductions in relative responses following PT on either a wooden gymnasium floor or a thick, unstable athletic mat, as assessed by strength measures. However, their results regarding the impact of training surface are inconclusive (Hammami et al., 2020; Ramirez-Campillo et al., 2020; Peitz, Behringer & Granacher, 2019). Several studies have reported limited benefits associated with the utilisation of unstable surfaces. Nevertheless, research comparing the effects of sand and firm surfaces on physical-performance responses is limited (Ramirez-Campillo et al., 2020). Marzouki et al. (2022) found that agility and strength improve to a greater extent through sand-based training compared with standard plyometrics. Similarly, Pereira et al. (2021) reported that training on sand enhances sprinting, jumping, and sprinting abilities with reduced muscle soreness compared with training on grass. The capacity of an athlete to utilise this PT is a crucial factor in achieving peak athletic performance, impacting proficiencies in activities such as sprinting, directional changes, and sport-specific manoeuvres like executing a football kick (Cormier et al., 2020). PT is a form of physical conditioning that involves a variety of targeted exercises, including drop jumps which place stress on the musculo-tendinous unit. This type of training is widely acknowledged as an effective means of improving athletic performance in skill-related activities whilst also promoting overall health and reducing the risk of injury (Chomani et al., 2021). The safe and effective implementation of plyometric programmes depends on several key factors, including the nature of the jump drills, the quantity and intensity of jumps, the surface utilised for training, the order of drills within a training session, the duration of rest periods between sets, and the frequency of rest periods between training days (Bin Shamshuddin et al., 2020). The physical-fitness adaptations to exercise in young players may be influenced by their training status. This lends support to the notion of the existence of certain methods during which physical-performance responses are accelerated (Tomporowski & Pesce, 2019). PT is important in improving the physical-performance responses of soccer players, and published results on the effects of testosterone concentration are conflicting. Thus, the respective effects of physical-performance responses and testosterone concentration on the response to PT require further research. Accordingly, the present study

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aimed to provide data to answer this question. Based on literature, we hypothesised that PT enhanced the physical-performance responses and testosterone concentration of male youth soccer players, and that this effect was modulated by maturity status and inter-set recovery interval.

Methods

Procedures

This study analysed the effects of an 8-week physical preparation period on testosterone blood concentrations and physical-performance responses in football. Results of physical-performance responses tests evaluating linear sprint, 20 m sprint tests, change-of-direction tests, jumping ability, a repeated sprint T-test, and static and dynamic balance in football players during the competitive season 2021/2022 were also assessed. Testosterone blood concentrations and physical-performance responses tests were performed at beginning of the training period. After 8 weeks, blood samples were collected at 7:30 am in the fasting state.

Participants

This investigation was structured as a prior examination conducted on individuals who played football. Twenty-four football players voluntarily participated in the study during the 2021/2022 season. The age range of the players was 18–22 years. A cohort of eight participants aged 18–23 years were voluntarily recruited to form the control group. The control group was not subjected to any particular exercise regimen and was permitted to maintain their customary training routine. Throughout the study, participants were directed to adhere to their typical exercise regimen and consume solely water within the hour preceding data collection. None of the individuals exhibited a history of smoking or any notable medical or health conditions. The participants refrained from consuming any medication, supplements, or corticoids prior to or during the course of the study. The research received approval from the coach and the president of the club. Prior to the commencement of any procedures, all participants were provided with a comprehensive explanation of the purpose and nature of the study and were required to provide written informed consent.

Anthropometric Characteristics

Standard techniques were utilised to obtain body weight and height. The resting heart rate (HR) was assessed using a HR monitor manufactured and the resulting data were analysed using specialised software. The same researcher conducted all measures at 7.30 a.m. for all time periods. Table 1 displays the anthropometric characteristics of participants determined prior to the start of the training period (mean standard deviation).

Table 1: Physical characteristics of control and experimental groups (mean ± SD) of the study participant

Variables	Unit of measurement	M	SD	Torsion coefficient
Age	Year	16.4	0.8	0.356
Weight	kg	70.8	6.4	0.582
Height	cm	1.72	0.08	0.126
Body fat		20.04	2.26	0.342
VO2max (ml·Kg−1 min−1)		48.7	1.80	0.234
BMI (Kg m−2)		20.90	0.71	0.383

Experimental design

Prior to participating in a study that involved 24 football players, written informed consent was obtained from all participants. The study was approved by the coach and club president. The team physician conducted a thorough examination of all individuals, with a specific emphasis on orthopaedic and other potential health

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issues that can hinder resistance training. We determined that all individuals were in satisfactory health and that the initial physical characteristics of the three groups were well matched.

Testing Procedures

Throughout the physical preparation phase until the conclusion of the trial, all participants were involved in training sessions under the supervision of the team coaches. The training regimen comprised four to five football training sessions per week and one friendly game per week. The typical duration of training sessions was between 90–100 min, with a focus on skill development at varying levels of intensity, as well as instruction on offensive and defensive strategies. Additionally, a period of 25–30 min of uninterrupted play with minimal intervention from the coach was typically implemented.

Details Of Plyometric Training

Both groups engaged in a uniform plyometric programme on Tuesdays, Thursdays, and Saturdays for a duration of 7 weeks. The programme involved performing plyometric exercises on a rigid gymnasium floor and sand. During these days, 25 min of their typical routine, which focused on technical–tactical skill development, were replaced by the plyometric intervention. The sand and rigid surface PT regimen comprised four primary workshops, as outlined in Table 2.

Table 2: Components of plyometric training for the two experimental groups.

Week	Workshop one	Workshop two	Workshop three	Total contacts
1	6×2	6×2	6×2	36
2	6×3	6×3	6×3	54
3	6×3	6×3	6×3	54
4	6×4	6×4	6×4	72
5	6×4	6×4	6×4	72
6	6×5	6×5	6×5	90
7	6×5	6×5	6×5	90
8	6×6	6×6	6×6	108

Workshop 1 = 6 lateral (0.3 m) hurdle jumps (3 to left and 3 to right), then sprinting 10 m; workshop 2 = 6 horizontal jumps (3 to left and 3 to right), then sprinting 10 m; and workshop 3 = 6 × 0.4 m hurdle jumps, then sprinting 10 m.

The workshop sessions were initiated with plyometric exercises, specifically the modified change-of-direction and modified Illinois test. They were followed by a repeated sprint and assessments of jumping ability through the Squat, Countermovement, and Five Jump techniques. Additionally, static and dynamic balance were evaluated. The workshop concluded with a 20 m linear sprint. The training sessions were initiated with a 10 min warm-up and had a duration of 35 min, as indicated in Table 2. The sessions were consistently monitored by a single coach and comprised 54 to 108 ground contacts per session. The provision of verbal encouragement was found to maintain a heightened level of motivation throughout the task.

Sprint Performance

The practise of sprinting commenced with a uniform warm-up session lasting for a duration of 20 min. The study's subjects performed a 20 m run starting from a stationary position, and their performance was measured using paired photocells placed at 5, 10, and 20 m. The experimental protocol involved conducting three trials with an inter-trial recovery period of 6–8 min. The optimal outcome was selected for analysis. This study

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aimed to assess the test–retest reliability of measurements taken at distances of 5, 10, and 20 m. Additionally, 95% confidence intervals were calculated to provide a measure of the precision of the estimates.

Vertical Jumping

Following a 15 min warm-up period, flight durations were measured with a high level of precision (0.001 s) by using an infrared photocell mat and digital computer to determine corresponding jump heights. The technique for performing squat and counter-movement jumps were previously expounded upon in a publication by Hammami et al. (2022). The test–retest reliability and 95% confidence interval values for the two measures were 0.919, 0.920 and 0.823–0.933, 0.829–0.960, respectively.

Five-Jump Test

The study's participants were instructed to perform a series of five forward jumps with the goal of covering the maximum distance possible. The measure in question exhibited a test–retest reliability of (95% confidence intervals for this measure were 0.833 and 0.762– 0.887 respectively.

Modified Change-Of-Direction T-test

The modified change-of-direction test was used to evaluate speed whilst incorporating directional changes such as forward sprinting, left and right shuffling, and backward running. Paired photocells were utilised to record performance times. The test–retest reliability and 95% confidence interval were determined to be 0.939 and 0.842–0.960, respectively.

Modified Illinois test

The agility test in question has been previously documented and made available to the public by Rouissi et al. in 2016. The measurement of performance times was conducted using paired single beam photocells manufactured. The reliability of this measure was assessed through test–retest analysis, resulting in a reliability coefficient of a 95% confidence interval ranging for this measure were 0.911 and 0.792–0.930, respectively.

Repeated Sprint Test

Multiple sprint tests were administered according to Fessi et al. (2016). This assessment provided a dependable and sound evaluation of the capacity to execute swift directional alterations, emulating a contest involving brief, strenuous exertions, intervals of recuperation, and multidirectional movements. The measurements considered were best time, mean time, total time, and a fatigue index that was computed as total time / (best time × 7) × 100) – 100 according to Spencer et al. (2006).

Stork Test of Static Balance

The Stork test was executed using the conventional procedure, wherein individuals stood on their non-dominant leg and placed their other foot against the inner side of the supporting knee, as described by Kranti Panta (2015). The test–retest reliability scores for measurements conducted on the right and left legs were found to be 0.790 and 0.781, respectively. The corresponding 95% confidence intervals were 0.422–0.852 and 0.631–0.822.

Dynamic Balance

The Y-balance test (Bulow et al., 2019) was used to evaluate dynamic balance on the dominant leg. The experiment consisted of conducting three trials in both directions, with a 2 min inter-trial rest period. Test–retest reliabilities for the three reach directions ranged from 0.871 to 0.920, with respective 95% confidence intervals of 0.791–0.922, 0.809–0.903, 0.793–0.933 for the left, back and right side respectively (right support leg); and 0.850–0.961, 0.880–0.934, 0.811–0.921 for the left, back, and right side, respectively (left support leg).

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Statistical Analyses

Statistical analyses were conducted using the Statistical Package for the Social Sciences version 24 software programme.

Read Aloud

The effects related to training were evaluated using two-way analyses of variance, specifically examining the interaction between group and time. If a statistically significant F value was observed, Tukey's posthoc procedure was utilised to identify pairwise differences. A significance level of $p \leq 0.05$ was adopted as the threshold for determining statistical significance regardless of whether a positive or negative difference was observed. The determination of effect sizes was conducted by converting partial eta-squared values to the scale proposed by Correll, Mellinger, and Pedersen (2021). The effect sizes were categorised as small ($0.00 \leq d \leq 0.49$), medium ($0.50 \leq d \leq 0.79$), and large ($d \geq 0.80$). Percentage changes were claculated using the following formula: ([post-training value – pre-training value]/pre-training value) × 100. The authors of the study conducted an assessment of measurement reliabilities by using intra-class correlation coefficients (Chenani & Madadizadeh, 2021). All measurements were found to exhibit a satisfactory level of reliability, with correlation coefficients exceeding 0.80.

Results

The test results are outlined in Tables 3 and 4. After the intervention, sand surface showed significant improvements in all sprint times relative to sand or rigid surface, with no significant differences between sand surface and rigid surface. PT resulted in reduced change-of-direction times compared with training on sand or a rigid surface, as indicated in Table 3. The rigid surface also exhibited improvement compared with the rigid surface. Both groups engaged in plyometric exercises demonstrated comparable improvements in vertical jump performance (PS: SJ: A 30.1%, $p \leq 0.001$; CMJ: A 39.7%, $p < 0.01$; P: SJ: A 30.9%, ps 0.001; CMJ: A 39.7%, $p \leq 0.01$). Scores on the five-jump test remained unchanged for all groups. RSTT scores showed gains for sand surface and rigid surface with respect to best time, mean time, and total time, but sand surface demonstrated a greater improvement in best times than the rigid surface (Table 4, $p < 0.05$). Stork balance scores increased in PT relative to sand or rigid surface, with sand surface also showing a gain compared with the rigid surface (left leg, $p \leq 0.01$), PT yielded gains of Y-balance in 2 of 3 scores for the right leg and 1 of 3 scores for the left leg test compared with the rigid surface, whereas only scores for the right leg/back (RL/B, $p \leq 0.001$) increased on the sand surface compared with the rigid surface.

Table 3: Presents a comparison of sprint, change of direction, and jump performance between groups before and after the 8-week trial.

Variables	Group	Pre-trial	Post-trial		*p* value	d (Cohen)
Sprint		M	SD	M	SD	
5 m (s)	PS	1.19	0.12	0.98	0.11	0.001	1.20
	P	1.20	0.07	1.15	0.09	0.001	1.33
	C	1.20	0.06	1.23	0.06	0.001	1.13
10 m (s)	PS	2.19	0.15	1.66	0.21	0.001	1.42
	P	2.15	0.13	2.03	0.12	0.001	1.52
	C	2.14	0.08	2.16	0.11	0.001	1.53
20 m (s)	PS	3.49	0.23	3.11	0.13	0.005	0.92
	P	3.55	0.20	3.44	0.14	0.001	1.19
	C	3.2	0.21	3.53	0.19	0.002	0.99

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Change-of-direction							
T-Half (s)	PS	7.02	0.31	6.39	0.26	0.001	1.25
	P	7.19	0.38	6.77	0.29	0.001	1.18
	C	7.15	0.34	7.17	0.31	0.007	0.89
Illinois-MT (s)	PS	13.3	0.4	11.11	0.5	0.001	1.36
	P	13.3	0.5	12.6	0.7	0.001	1.56
	C	13.2	0.3	13.4	0.3	0.001	1.18
Jump tests							
SJ (cm)	PS	28.7	4.1	36.7	3.4	0.001	1.14
	P	27.4	3.9	35.8	2.6	0.001	1.99
	C	27.5	3.2	29.7	2.8	0.005	0.91
CMJ (cm)	PS	29.4	3.6	40.5	5.4	0.002	0.99
	P	30.8	3.5	39.1	3.2	0.001	1.94
	C	30.5	3.6	31.8	3.1	0.001	1.15
5JT (cm)	PS	10.4	0.7	11.2	0.3	0.199	0.49
	P	9.8	1.3	11.2	1.5	0.013	0.68
	C	10.1	1.2	10.3	1.2	0.239	0.46

PS = plyometrics on sand; P = standard plyometrics; C = control group.

Table 4: Presents a comparison of the repeated sprint T-test and balance performance between groups before and after the 8-week trial.

Variables	**Group**	**Pre-trial**		**Post-trial**		***p* value**	**d (Cohen)**
Repeated sprint T-test		M	SD	M	SD		
Repeated sprint T-test–Best time (s)	PS	12.3	0.6	10.3	0.7	0.001	1.48
	P	12.3	0.4	11.3	0.6	0.001	1.98
	C	12.3	0.7	12.2	0.6	0.001	1.44
Repeated sprint T-test-Mean time (s)	PS	12.6	0.6	10.6	1.1	0.003	0.98
	P	12.5	0.4	11.1	1.2	0.001	1.59
	C	12.5	0.8	12.4	0.7	0.001	1.05
Repeated sprint T-test–Fatigue index	PS	−4.5	2.2	−2.5	0.7	0.001	1.41
	P	−4.1	2.2	−3.8	2.4	0.006	0.77
	C	−8.1	3.6	−5.7	3.1	0.198	0.49
Repeated sprint T-test–Total time (s)	PS	87.6	3.10	73.8	7.2	0.003	0.98
	P	86.8	2.4	77.1	8.2	0.001	1.59
	C	87.1	4.9	86.6	4.4	0.001	1.05
Y Balance Test							
Right support leg							
RL/L (cm)	PS	83.7	6.7	98.2	12.8	0.024	0.76
	P	83.7	7.9	94.1	9.4	0.000	1.14
	C	82.3	6.3	84.10	6.2	0.088	0.61

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RL/B (cm)	PS	106.4	6.5	123.6	7.1	0.001	1.56
	P	105.7	5.1	123.6	8.10	0.001	1.99
	C	103.1	6.2	106.3	5.6	0.001	1.04
RL/R (cm)	PS	51.5	9.10	55.8	9.4	0.895	0.13
	P	52.4	10.9	55.6	11.1	0.336	0.27
	C	52.2	12.2	52.7	12.2	0.844	0.16
Left support leg							
LL/L (cm)	PS	48.10	8.8	53.4	7.6	0.703	0.23
	P	51.2	12.3	54.10	9.7	0.113	0.44
	C	51.8	9.5	55.2	9.2	0.988	0.000
LL/B (cm)	PS	111.8	5.9	123.2	8.8	0.001	1.13
	P	104.4	3.6	119.6	8.2	0.001	1.28
	C	105.8	9.10	108.6	9.8	0.049 c	0.68
LL/R (cm)	PS	86.6	6.8	90.8	6.6	0.170	0.52
	P	84.4	6.9	90.8	5.6	0.014	0.69
	C	82.3	9.6	86.4	9.7	0.866 c	0.15
Stork Balance Test							
Right leg (s)	PS	3.26	1.37	15.13	2.08	0.001	1.50
	P	5.12	5.45	6.77	5.57	0.001	1.14
	C	3.19	1.32	3.55	1.63	0.001	1.62
Left leg (s)	PS	4.42	3.08	15.19	3.08	0.001	2.27
	P	4.44	3.39	5.43	4.55	0.001	1.45
	C	2.08	0.54	2.42	0.73	0.001	1.74

Discussion

The primary empirical discovery of this study indicated that adolescent football players with prior experience who underwent a specific level of PT, exhibited improved performance in sprinting, change of direction, and static balance when the training was conducted on a sand surface as opposed to a rigid surface. Nevertheless, previous research conducted on various participant groups and varying intensities of PT has not consistently reported similar advantages. What impact does an unstable surface have on the outcomes of PT? According to Villalba et al. (2022), evidence suggests that decreased ground reaction times, accompanied by increased lateral movement and improved balance, may enhance biomechanical learning, neuro-muscular adaptations, and the strengthening of muscles involved in balancing. In turn, it can lead to improved training response when performing on stable surfaces, as indicated by Dos' Santos et al. (2019). In fact, when jumping onto a sandy surface, the foot sinks into the sand, requiring the athlete to exert additional force in making successive leaps, which over time is likely to increase strength. Several investigators have emphasised the potentially favorable influence of training on an unstable surface upon balance and agility (Hammami et al., 2020; Lichtenstein et al., 2020; Marzouki et al., 2022), offering as it does specific training in the challenges faced during actual play on uneven and soggy fields. The potential benefits of training on an unstable surface for improving balance and agility were noteworthy because it provided targeted practise for the difficulties encountered during real gameplay on uneven and wet playing fields. Nevertheless, the potential for sandy surface to mitigate overtraining may vary depending on the age, maturity, and training level of athletes. The

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observed enhancement in muscle strength resulting from the tapering of a conventional plyometric regimen may also indicate the likelihood of such correction according to Bonavolontà et al. (2021). They provided empirical evidence in favour of the aforementioned concept by demonstrating that the implementation of PT programmes on sand results in notably decreased muscle soreness. This finding is consistent with the research outcomes of Suresh and Patil (2023). If the presence of overtraining correction was indeed a contributing factor, the degree to which performance improvement was observed upon transitioning to a sandy surface would be contingent upon the time interval between the last training session and the subsequent post-test, which in this study was 7–10 days. This matter may be clarified by implementing diverse intensities of plyometric activity, accompanied by meticulous observation of muscle-soreness sensations and the intramuscular release of enzymes (Ahmadabadi et al., 2023; Ramirez-Campillo et al., 2021; Znazen et al., 2022). The observed improvements in sprint performance between both plyometric groups in our study can be attributed to concurrent enhancements in muscle strength and power, as indicated by previous research conducted by Aloui et al. (2022) and Berton et al. (2022). However, in contrast to the current data, Hammami et al. (2022) observed notable improvements in 10 m performance after 8 weeks of PT on either a stable floor or two extremely unstable surfaces. The gains were measured at (1.4%) and (1.8%), respectively, both of which were statistically significant ($p<0.05$). Additionally, their study indicated a tendency towards similar improvements in 30 m performance, with gains of 0.7% and 0.9%, respectively ($p=0.08$). Similarly, Negra et al. (2017) reported comparable enhancements in sprinting performance amongst pre-pubertal soccer players following an 8-week intervention of either unstable (0–10 m (46%), 0–20 m [A5%), $p<0.01$) or stable (0–10 m (A4%], 0–20 m [A4%], $p < 0.01$) PT. The observed distinction between PT and the sand surface and rigid surface groups can be attributed to the athletes being in a phase of physical preparation, specifically in the pre-season, during which they had not yet attained their optimal performance level. The current study observed that football players experienced more significant improvements in their capacity to rapidly change direction when training on sand surfaces (T Half A 8.9%; Illinois MT A8.3%) compared with stable ones (T-Half 5.8%A; Illinois MT A4.2%). In their recent study, Hammami et al. (2022) observed favourable outcomes associated with depth jump training on sand and land surfaces in terms of change of direction T test performance amongst a sample of participants. Conversely, Negra et al. (2017) observed comparable enhancements in the Illinois MT score after an 8-week period of PT on a stable (A3%, $p<0.01$) and an unstable surface (A3%, $p<0.01$). Granacher et al. (2015) reported similar enhancements in change-of-direction capabilities (A2.9 to 3.1%, $p<0.001$) amongst sub-elite adolescent male soccer players following an 8-week PT regimen conducted on either stable or unstable surfaces. The potential improvement in change-of-direction performance resulting from PT on a sand surface may be attributed to the increased force required by athletes to overcome hurdles during this type of exercise. During the act of leaping onto the sand, the foot experiences a sinking effect as it makes contact with sand particles. Consequently, the athlete is required to apply an additional force to execute a subsequent jump (Ahmadi et al., 2021; Mirzaei et al., 2014). The endocrine system is greatly stimulated by physical activity, and the hormonal response to exercise is influenced by a variety of factors, including the subject's training state, method of exercise, duration, and intensity (Athanasiou, Bogdanis & Mastorakos, 2023). The majority of studies performed at the beginning and conclusion of sports performance (pre and post) have evaluated the relationship between exercise and endocrine function (Fernández-Lázaro et al., 2021). Few studies have analysed the impact of many months of physical activity on hormonal changes. Conversely, no study has attempted to comprehend the result of exercise duration on blood-hormone concentrations in football players. However, engaging in competitive, consistent, and frequent physical activity is extensively recognised to significantly affect the regulation of hormones in the body, specifically those leading to alterations in the testosterone and cortisol levels in the

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https://proximusjournal.com/index.php/PJSSPE
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bloodstream. Physical exercise has the potential to impact an individual's physical performance, particularly in sports that rely on strength and endurance. This phenomenon is likely attributable to elevated levels of testosterone in the bloodstream, as suggested by previous studies (Wiciński et al., 2023). A previous study has examined the fluctuations in testosterone levels amongst football players throughout a training a duration of 8 weeks. In another work, Muscella et al. (2022), demonstrated that young footballers exhibit elevated levels of testosterone concentrations. This finding agrees with a previous one from a study conducted on various team sports (Rodrigues Lopes et al., 2022). In the current work, we observed an increase in testosterone levels during the initial phase of training, which was characterised by the implementation of high-intensity physical exercises as a prerequisite for commencing the training regimen. Subsequently, a modest reduction in the levels of circulating hormones was observed following the completion of the training session. As previously noted, physical exercise serves as a stressor, and the production of testosterone is influenced by the intensity and duration of exercise (Rao, Narnaware, & Giripunje, 2023). Testosterone is widely acknowledged for its robust anabolic impact on muscle tissue and its ability to stimulate competitive behaviour, rendering it advantageous for enhancing athletic performance (Hilton & Lundberg, 2021). The impact of elevated testosterone levels on athletic performance is found to be substantial (Hilton & Lundberg, 2021). However, available evidence regarding the effects of testosterone on athletic performance is limited and low quality (Muscella et al., 2022). Moreover, the matter at hand is subject to significant controversy owing to the existence of numerous rulings within the realm of professional sports. Notably, any direct link between testosterone concentrations and the type of training has not yet been established (Sabag et al., 2018). Therefore, we corroborated that testosterone was associated with athletic-performance responses. Our findings extended previous research such as that of Massini et al. (2018), who found that elevated testosterone is associated with improved performance in middle-distance runners based primarily on the aerobic energy pathway. According to Hilton and Lundberg (2021), testosterone has a positive impact on muscle mass by promoting its growth whilst simultaneously reducing body fat. Our own findings agreed with this notion, that is, we observed significantly decreased body-fat percentage compared with testosterone levels. All these outcomes indicated testosterone's significant role in carbohydrate and proteins metabolism by acting as competitive agonists at the receptor level of muscle cells.

Conclusions

The sport of football is becoming increasingly athletic and placing greater physical demands on participants. Players also require strength and power to outrun or outjump their opponents and capture the ball before others do. Our results regarding football players at a crucial juncture in their pre-competition preparation indicated that an 8-week training programme of either PT or sand surface improved physical-performance responses. Nevertheless, PT appeared to induce some additional improvements in athletic performance that were not observed with sand surface, particularly with regard to sprint, change of direction, repeated sprint test (best time), and static equilibrium. More investigations are warranted in this domain across a diverse range of sports to establish comprehensive hormone reference values. Therefore, promoting the incorporation of PT as a component of pre-season conditioning for coaches is advisable. Our findings indicated that the training sessions undergone by football players yielded favourable outcomes in terms of anaerobic and aerobic fitness, thereby rendering the players suitable for participation in matches. Training induced specific changes in endocrine function and thus maintained body homeostasis amongst football players. Coaches and sport researchers need to consistently differentiate between variations in hormones to enhance athlete performance. Further research involving a larger sample size of football players is necessary to validate these findings.

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ISSN (E): 2942-9943

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