



Journal Website:
<https://theusajournals.com/index.php/ajsshr>

Copyright: Original
content from this work
may be used under the
terms of the creative
commons attributes
4.0 licence.

USE OF DIGITAL SPORTS TECHNOLOGIES IN SPORTS TELEVISION

Submission Date: November 20, 2023, Accepted Date: November 25, 2023,

Published Date: November 30, 2023

Crossref doi: <https://doi.org/10.37547/ajsshr/Volume03Issue11-22>

Akhrorjon Nuriddinov

Asian International University Teacher of the Department of Physical Culture, Uzbekistan

ABSTRACT

From the past to the present, technological developments have had a major impact on the world of professional sports. Sport, which became a mass spectacle in ancient Greece with the construction of large stadiums, influenced the whole world with the development of its systems and the spread of mass media. The rise of the Internet and digital technologies, which have changed the face of modern sports and sports psychology, offer potentially important advances to sports and sports spectators, and also fundamentally change the accuracy and decision mechanisms, timing systems and data tracking in sports, and indirectly, the information received. has paved the way for more effective sharing of information with audiences. These changes have not only affected sports, but also the way sports media broadcast around the world and how sports fans experience those broadcasts. Developments in the Internet and digital technologies, along with new media, have dominated the processes of production, marketing, presentation and display of sports content for the screen, a dynamic, interactive structure and initiated a synergistic relationship between sports presentation. the audience. Accessing content is faster and easier, and media files are more complex and intuitive with improved resolution and color rendering.

In particular, the fast, intimate and interactivity of social networks and mobile technologies have made them convenient platforms for satisfying the desires of sports fans. This study shows that new sports technologies can ensure compliance with the rules of the game during sports, increase accuracy, improve athletes' performance, and increase confidence in spectators. It is also suggested that these technologies will have an impact on the sports

industry and therefore on sports broadcasting, and that with the use of new communication technologies, content, methods and presentation styles will be diversified and the viewing experience of sports fans will be improved.

KEYWORDS

Digital technologies, Digital sports technologies, Television broadcasting, Sports television, New media.

INTRODUCTION

Today, digital technology is emerging as a tool of the global sports industry, its capabilities are increasing and becoming more complex, used by sports broadcasters and integrated and adopted in sports events at all levels.

Digital technology, which brings together sports fans with similar habits and allows them to communicate with each other, has also been one of the important driving forces in the diversification of broadcast platforms. At the same time as the competition in the sports industry is increasing, this diversification has increased the interest in sports content, sports products, teams, leagues, federations, events, athletes, commentators, sports broadcasting, in short, the sports industry. has led to the emergence of new broadcasting platforms, such as online, offline, uploaded, downloaded, broadcast, narrowcast or podcast, with the advantages of sports audiences, especially on mobile devices. Digital technologies that are increasing with digitization and are used at almost all levels of professional sports; Today, we can provide coaches with real-time information about the

physiological body reactions or speed of their athletes, reduce the frequency of controversial decisions by supporting decision mechanisms, monitor compliance with the rules, and improve the efficiency of the sports team with the help of artificial intelligence. minimizing human intervention with tactical deep learning methods and automation frameworks that contribute to ensuring fair competition.

In recent years, the sharing of data produced by these techniques with viewers has given rise to alternative content and presentation strategies for sports broadcasting. Presenting the performance of an athlete or a team to the audience with statistical information, slow motion, freeze frame, two or three-dimensional graphics techniques from decision support systems, sports balls, rackets, nets, broadcasting with helmets and more. Sharing data from on-site sensors with sports fans has enhanced the natural appeal of sports on television, created new and passionate audiences for many sports, and has been effective in building trust with viewers by enriching the fan experience. In addition, viewers looking for non-

sports communication, such as the latest stats on their favorite players and post-sports coverage, are turning to mobile-friendly apps and want to instantly connect with their favorite teams or other like-minded fans. . This presence outside of sports expands the target audience of sports broadcasters and gradually increases the value of sports broadcasting as the growing and evolving demands of viewers are met.

On the one hand, this study shows the relationship between digital sports technologies and sports broadcasting, and on the other hand, by scanning the literature on sports technologies used in broadcasting, it tries to introduce the dimension of the process reflected in the audience. Based on the obtained data, the study showed that digital technologies used in sports can contribute to the development of the sports industry, including sports broadcasting, and allow sports fans to experience sports content in a more enjoyable way.

Digital technologies

Digital technology refers to technology that enables computer-based products or solutions, including electronic devices, automation systems, applications, or resources that digitally receive, process, display, transmit, or record information. Computers, Internet, websites, blogs, online image and audio streaming platforms, social media platforms, mobile devices, cryptocurrencies, artificial intelligence technologies,

cloud computing systems, 5G technology, e-books, GPS technologies, virtual reality technologies, smart objects, 3D Printing systems, QR codes, ATM devices, digital cameras, robotic equipment, sensors, radars and drones are some of the most popular examples of today's digital technologies, but not limited to them.

These technologies positively impact communication, collaboration, productivity, content management, access to analytics, and user experience, and with their advanced performance, flexible structures, and connectivity features, mass customization and mass reconfiguration of the supply chain contributes to the world of industry by organizing.

Digital technology, which has significantly impacted almost every aspect of human life in the last few years, has advanced faster than any other advancement in history, reaching more than half of the world's population and transforming civilizations in the last two decades alone.

The basis of these global changes is the desire of mankind to acquire knowledge, solve problems, make life easier and improve the standard of living. Its positive effects and advantages play an important role in the fact that digital technology has become an integral part of life in a short period of time.

The binary coding language (0 and 1) used by digital technologies allows dissimilar systems to

communicate and exchange information. This common language can combine the power of different systems to achieve similar goals, enabling a more interactive and convergent process. Automation is at the heart of every technology. Digital technologies based on automation automate the most complex processes in communication, education, sports, health, finance or other fields, can easily and quickly implement important and time-consuming processes, significantly saving human labor and time. saves and increases labor productivity.

Digital technologies used in sports

Data analytics in sports is one of the topics that has received a lot of attention in recent years. Increasing awareness of the possibilities of data analysis and statistics and the emergence of new monitoring technologies have been the driving force behind this evolution. Analysis of position and motion data in sports has not only provided important training-related information, but has also become an increasingly important source of information for improving audience engagement and broadcasting in professional sports events. Today, the use of wearable technology, big data analytics and sensor technology has revolutionized the way sports are played, analyzed and developed. Thanks to these technologies, professional athletes can learn more about their performance, improve their training methods, and improve their skills. "Digital technology offers the

opportunity to bring fans closer together through innovative and personalized experiences, unlocking unique opportunities for growth in the sports industry." Cycling, skating, swimming, skiing, surfing, soccer, tennis, athletics and many other sports use digital technology to ensure compliance with the rules of the game and minimize errors. Personal technologies, rehabilitation technologies, landscape technologies, motion technologies, application technologies and database technologies are analytical solutions, physiological monitoring and decision support systems developed to improve the performance of athletes within the framework of digital technologies.

Motion capture technologies

Today's technology enables the measurement of key sport-specific characteristics to improve athlete performance and improve effective decision-making processes among sports scientists and coaches. The motion capture technologies used in these measurements, which have improved significantly in recent years, allow athletes to perform tactical, technical and physical exercises.

This allows measurement of sensory performance through optical monitoring systems. Optical tracking systems refer to information technology that can track, detect and collect real-time information about the athlete and the environment measured by micro-

sensors. Typically, this technology extends network connectivity and computing power to objects, sensors, and everyday objects that are not typically considered computers, so that data can be created and shared with minimal human intervention. With this technology, coaches, players, and fans can analyze data collected by multiple devices to formulate game strategies, analyze potential injuries, and customize the experience.

Wearable technologies

Motion capture systems have the ability to analyze the biomechanics of many functional and athletic tasks. Optical systems consist of cameras used to track passive or active markers placed on anatomical landmarks for whole-body imaging. However, cameras often have limited capture volumes due to their installation. Wearable technologies are alternative products that have the potential to overcome these limitations. From lighter and flatter athletic shoe designs for optimal grip and balance since the 1950s, to the development of Transponder or RFID antenna technology in the early 1980s, which uses radio frequency to record time via a chip implanted in the athlete. Heart rate development in athletes in 2013. From launching clothing technologies that measure respiratory activity, posture, speed, and weight distribution, to developing athletic jerseys in 2016 that allow sweat to evaporate and wick away from the body instead of absorbing it; and in the same year, to

produce sports uniforms that measure athletes' on-field condition, fatigue and condition, and to team managers to prevent injuries. Until the advent of sensors that provide data, digital technology has been an important part of development. in sports.

The main characteristics of wearable technologies are characterized by data collection, processing and transmission of information, services and resources for end users. The main advantage of these systems is that they provide real-time feedback in a real sports environment that cannot be offered through video analysis. They are also designed to be small, lightweight, wireless and unobtrusive, allowing for full range of motion during a sporting event. This allows athletes to be observed outside of a laboratory environment or in a natural training zone. Wearable devices are technologies used to collect performance data, especially in team sports, and to comprehensively and real-time measure the physical and physiological fitness of players during training and competition. The signals sent from these devices are monitored by global positioning systems (GPS) and used to verify positional requirements during the game. Preferred especially for their reliability, these technologies do not require extensive installation and are used in team sports because they provide real-time feedback. Data from wearable sensor wireless devices used by the sports world today to improve players' athletic performance, monitor and analyze athletes'

movements, training and match-day performance is presented to viewers/listeners graphically/kj or audio. provided through media platforms, thus improving the fan experience. and interactive participation increases.

As a continuation of this technology, using wearable technology, fans are created to feel exactly what the athletes feel during the game. Thanks to this big-data technology, called the Internet of Things, viewers can see not only competition data, but also the team's overall performance and individual athletes' performances).

Decision support technologies

In recent years, the use of technology in many areas of sports has increased. Spectators who are able to review commentators, coaches and referee decisions often have access to modern technology that offers slow motion and replay options that often show different angles. However, in some sports, these technologies are not used by referees. On the other hand, large technological investments are being made to develop sophisticated scoring mechanisms to use technology to support athletes and sports broadcasters.

The confidence provided by decision support technologies used in sports competitions will not only help referees, but also lead to fairer competition by reducing the incidence of controversial decisions, demonstrating the real need for such technologies.

Decision support technologies are actively used in almost all sporting events, but they stand out more in team sports. In football, one of the most popular team sports in the world, decision support technologies are becoming increasingly important. Because the referee is the only person who has full authority to enforce the rules of the game. Controversy is therefore inevitable, the most glaring of which is the referee's decisions, which often involve commentary and concerns that the ball has crossed the goal line completely.

Video assistant referee technology

In the Video Assistant Referee (VAR) system, which was introduced by the International Football Federation (FIFA) in 2018 and is also used in our country; sitting in the central monitoring room to quickly view the game footage transmitted to them by the many cameras on the field to assist the referee.

There is an assistant referee and a technical team who can review the game. The VAR team has access to footage and wears a wireless device after watching replays of the position.

They communicate their thoughts to their colleagues inside the stadium through a headset microphone. The on-field umpire then signals for the final decision and sees the position images again on the screen on the edge of the field. The referee draws a rectangle with his hands to indicate whether the original decision has been changed as a result of the review, and the final

decision is displayed on the stadium screens. This preview state is presented visually to viewers by the broadcaster using split screen, var line, slow motion and freeze frame techniques. This development in digital media technologies helps referees to make the right decision in the game, which has the potential to change the final outcome of the sports competition, ensures fair competition and is satisfied with digital decision support technology. encourages viewers. Post-game discussions, on the other hand, create integral media content and interaction for sports broadcasters and viewers.

Sports TV shows

The advent of television in the 1930s is often cited as the greatest technological advance that brought sports from the public sphere into the home. Sports broadcasts started in England in 1936 and continued until 1939, when the war broke out. Sports television in the United States began in 1939 when NBC televised baseball and American football (Deninger, 2012). In Germany, television technology was used to transmit live footage of the 1936 Berlin Olympics to movie screens. By 1970, 130 countries were broadcasting their sports content in color and live. In the 1980s and 1990s, television, which had until then been seen as a mass communication medium, was transformed again by a second wave of technological innovation. TV set; Its use as an alternative screen-based entertainment medium to videos, DVDs, computers, and computer

games has diversified its concept and function. In broadcasting, the advent of video recording and digital time-shifting devices freed viewers from the linear structure of television programs, cable, satellite, and above all, digitization created a multi-channel environment. The relationship between technology and sports is undeniable. This dependence is even more pronounced when broadcast television is introduced into the equation. Today's growing audience demands, along with the Internet and evolving communication technologies, have necessitated the adaptation of sports broadcasting techniques.

This has revolutionized sports broadcasting, with terrestrial, cable or satellite systems largely replaced by Internet-based multimedia platforms such as online, offline, uploaded, downloaded, mobile and podcasts. Thus, the viewer has a much wider range of tools to interact with the screen.

Sports broadcasting, which is the presentation of a competition between two teams or athletes by means of communication; Leverages digital tools on and off the field, analytics solutions designed to improve player performance, ticket pricing, decision support mechanisms and digital platforms to engage with sports fans. transformation structure. With the integration of these new stakeholders, new digital ecosystems have emerged in the sports broadcasting industry.

Evaluation and conclusion

Today, local, regional, national and international sports media around the world use the emotional impact of sports and the new platforms provided by new media to market global brands and connect with their consumers. While these platforms provide publishers with the ability to target audiences and digital measurement, they also give consumers flexibility over what media content they can access, when, on what device and for how long. In addition, the rise of social media has led to action allowing audiences to create their own media, share their opinions, vote on decisions, and at the same time harness the collective power of interacting with them. 'gave a chance for more integration.

Investments in video analytics technologies to analyze sports events and provide viewers with a better understanding of the game are increasing day by day. The basis for this lies in the desire to present new visual elements that deepen the audience's interest and understanding of the competition. In sports broadcasts, viewers usually focus on the players and the ball. The use of technology to detect and track these objects from camera images makes it possible to visualize movements.

Almost all professional sports events are delivered to viewers via live or taped content created in conjunction with a range of broadcast equipment used in

traditional television broadcasting. To the extent that streaming allows, gameplay footage is supported by a narrator's voice, sound effects, and computer-based visuals, and footage can be replayed in slow motion as needed. Although these technologies have contributed to the gaming experience for sports fans in front of the screen for a long time, the development of communication technologies and, at the same time, the increasing demands of the audience have increased the pressure on the producers of sports content and led to the use of different methods. By combining the richest live data in sports with the deepest historical database, this pressure will enable broadcasters to leverage the power of digital sports technology to produce more products, deliver personalized experiences, unlock unique insights and connect fans to the right content for them. prompted to connect. On the other hand, the recent explosion in popularity of video games, especially sports games, can also be seen as a pressure factor. While the first sports video games took their presentational inspiration from television broadcasts, this trend is now being reversed. Television shows now take their technological cues from video games. This relationship has become an industry strategy as TV and game developers imitate each other's TV style to market their products across multiple media channels.

The study discusses the impact and impact of digital sports technologies on the sports industry and

broadcasting, and the advances made by sports fans through new media; It states that digital sports technologies are a powerful resource for sports broadcasters and viewers to monitor athletes' and teams' performances, apply the rules of the game, and assist in decision-making to determine accuracy. The use of these technologies in sports broadcasting has increased the natural appeal of sports on television, creating new and passionate audiences for many sports, while allowing broadcasters to adapt their systems to accommodate this new content.

Sports broadcasting integrated with digital sports technologies and KJ applications used in this direction has provided satisfying content to sports fans who want viewers to understand the rules of sports and the validity of decisions, as well as the latest statistics about their favorite team or players. get that content in real-time and from athletes and other fans. They've combined that with the reactions they've received and built a connection outside of the game. In short, the integration of technology into various aspects of professional sports has had a positive impact on the way many fans experience the game.

REFERENCES

1. Akhrorjon Nuriddinov. (2023). A STUDY OF THE AGGRESSIVE STATUS OF FOOTBALL FANS. American Journal Of Social Sciences And Humanity Research, 3(11), 73–80.

2. Bahodir o'g'li, N. A. (2023). YEVROPA MAMLAKATLARIDA YUQORI MALAKALI FUTBOLCHI VA MURABBIYLARNI TEXNIK TAKTIK HARAKATLARINI TADBIQ QILISH METODIKASI. THEORY AND ANALYTICAL ASPECTS OF RECENT RESEARCH, 2(14), 187-189.
3. Nuriddinov, A., Sayfiyev, H., & Sirojev, S. . (2023). WHY FOOTBALL IS THE FIRST SPORT THAT COMES TO MIND TODAY. Modern Science and Research, 2(9), 200–203. Retrieved from <https://inlibrary.uz/index.php/science-research/article/view/24104>
4. Nuriddinov, A. (2023). THE ROLE OF FAIR PLAY IN PHYSICAL EDUCATION. Modern Science and Research, 2(10), 244–250. Retrieved from <https://inlibrary.uz/index.php/science-research/article/view/24327>
5. Bahodir o'g'li, N. A. (2023). NIMA UCHUN FUTBOL BUGUNGI KUNDA SPORT DEB ATALGANIDA BIRINCHI NAVBATDA AQLGA KELADI.
6. Nuriddinov Axrorjon Bahodir o'g'li, (2023) Futbol zo'ravonligi, fanatizm va millatchilik International journal of scientific researchers 2(1), 451-456.
7. Azamat Orunbayev, (2023) NONUSHTANING MASHQ BAJARISHGA TA'SIRI. International journal of scientific researchers 2(2), 3-6.

8. Azamat Orunbayev. (2023). USING TECHNOLOGY IN A SPORTS ENVIRONMENT. American Journal Of Social Sciences And Humanity Research, 3(11), 39–49. <https://doi.org/10.37547/ajsshr/Volume03Issue11-07>
9. Azamat Orunbayev. (2023). FITNES VA SOG'LOMLASHTIRISH BO'YICHA MURABBIYLIK YO'NALISHIGA KONTSEPTUAL YONDASHUV. Research Focus International Scientific Journal, 2(8), 23–28. Retrieved from <https://refocus.uz/index.php/1/article/view/431>
10. Azamat Orunbayev. (2023). PANDEMIYA DAVRIDA MOBIL SOG'LIQNI SAQLASH VA FITNES DASTURLARI (PROGRAM). Research Focus International Scientific Journal, 2(7), 37–42. Retrieved from <https://refocus.uz/index.php/1/article/view/414>
11. Yarasheva Dilnoza. (2023). METHODS OF ORGANIZING NON-TRADITIONAL FITNESS CLASSES. American Journal Of Social Sciences And Humanity Research, 3(11), 61–72. <https://doi.org/10.37547/ajsshr/Volume03Issue11-09>
12. Yarasheva Dilnoza Ismail Qizi. (2023). TECHNICAL AND TACTICAL SKILLS IN SPORTS. American Journal Of Social Sciences And Humanity Research, 3(10), 105–116. <https://doi.org/10.37547/ajsshr/Volume03Issue10-16>
13. Yarashova, D. (2023). THE IMPACT OF PLAYING SPORTS IN EARLY CHILDHOOD ON SOCIAL DEVELOPMENT. Modern Science and Research, 2(10), 230–234. Retrieved from <https://inlibrary.uz/index.php/science-research/article/view/24325>
14. Ярашева, Д. (2023, April). ФИТНЕС КАК ОЗДОРОВИТЕЛЬНАЯ ДЕЯТЕЛЬНОСТЬ. In Proceedings of International Conference on Modern Science and Scientific Studies (Vol. 2, No. 4, pp. 278-283).
15. Yarasheva, D. (2022). BOLALARDA MASHQ QILISHNING AHAMIYATI. PEDAGOGS jurnali, 19(1), 139-142.
16. Ярашева, Д. (2023). СТИЛИ ОРГАНИЗАЦИИ НЕТРАДИЦИОННЫХ ОЗДОРОВИТЕЛЬНЫХ ЗАНЯТИЙ. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 19(5), 6-10.
17. Yarashova, D. (2023). STRENGTH TRAINING AND STRENGTH TRAINING IN CHILDREN. Modern Science and Research, 2(9), 211-215.
18. Yarasheva Dilnoza Ismail qizi, (2023) INSONLAR, SPORT VA FALSAFA International journal of scientific researchers 2(1), 457-462.
19. Sirojev Shoxrux. (2023). BEHAVIORAL CHARACTERISTICS, PRINCIPLES AND WORKING METHODS OF COACHES. American Journal Of Social Sciences And Humanity Research, 3(11), 50–60.

- <https://doi.org/10.37547/ajsshr/Volume03Issue11-08>
20. Shoxrux, S. (2023). VOLEYBOLDA OTISH TEZLIGI TUSHUNCHASI VA AHAMIYATI. Новости образования: исследование в XXI веке, 1(11), 913-917.
21. Sirojev, S. (2023). THE CONCEPT AND IMPORTANCE OF SHOOTING SPEED IN VOLLEYBALL. Modern Science and Research, 2(9), 187-191.
22. Sirojev Shoxrux Fayzullo o'g'li, (2023) YEVRIPA ITTIFOQI VA SPORT. International journal of scientific researchers 2(2), 7-16.
23. Saidova, M., & Sayfiyev, H. (2023). CONTENT-IMPORTANCE AND PRINCIPLES OF PHYSICAL EDUCATION CLASSES. Modern Science and Research, 2(9), 192-199.
24. Saidova, M. (2023). CONTENT-IMPORTANCE AND PRINCIPLES OF PHYSICAL EDUCATION CLASSES. Modern Science and Research, 2(9), 192-198.
25. Sayfiyev, H., & Saidova, M. (2023). EFFECTS OF GYMNASTICS ON FUNDAMENTAL MOTOR SKILLS (FMS), POSTURAL (BALANCE) CONTROL, AND SELF-PERCEPTION DURING GYMNASTICS TRAINING. Modern Science and Research, 2(9), 204-210.
26. Sayfiyev, H. (2023). EFFECTS OF GYMNASTICS ON FUNDAMENTAL MOTOR SKILLS (FMS), POSTURAL (BALANCE) CONTROL, AND SELF-PERCEPTION DURING GYMNASTICS TRAINING. Modern Science and Research, 2(9), 204-210.
27. Ayubovna, S. M., & Komiljonova, K. I. (2022). Features of Application of Sports Games in Preschool Children. International Journal of Culture and Modernity, 16, 17-23.
28. Saidova, M., & Sayfiyev, H. (2023). CONTENT-IMPORTANCE AND PRINCIPLES OF PHYSICAL EDUCATION CLASSES. Modern Science and Research, 2(9), 192-199.
29. Xayrulloevich, S. H. (2023). SPORT GIMNASTIKA MASHG'ULOTLARIDA ASOSIY HARAKAT QOBILYAT (FMS), POSTURAL (MUVOZANAT) NAZORAT VA O'ZINI O'ZI IDROK ETISHGA SPORT GIMNASTIKASINING TA'SIRI.
30. Saidova, M., & Sayfiyev, H. (2023). CONTENT-IMPORTANCE AND PRINCIPLES OF PHYSICAL EDUCATION CLASSES. Modern Science and Research, 2(9), 192-199.
31. Sayfiyev, H., & Saidova, M. (2023). EFFECTS OF GYMNASTICS ON FUNDAMENTAL MOTOR SKILLS (FMS), POSTURAL (BALANCE) CONTROL, AND SELF-PERCEPTION DURING GYMNASTICS TRAINING. Modern Science and Research, 2(9), 204-210.
32. Sirojev, S., Nuriddinov, A., & Sayfiyev, H. (2023). THE CONCEPT AND IMPORTANCE OF SHOOTING SPEED IN VOLLEYBALL. Modern Science and Research, 2(9), 187-191.

33. Nuriddinov, A., Sayfiyev, H., & Sirojev, S. (2023). WHY FOOTBALL IS THE FIRST SPORT THAT COMES TO MIND TODAY. Modern Science and Research, 2(9), 200-203.
34. Сайфиев, Х., & Саидова, М. (2023). БАДМИНТОНИСТЫ ФИЗИЧЕСКИЙ ПОДГОТОВКА И ЕМУ РАЗРАБОТКА МЕТОДЫ. Инновационные исследования в науке, 2(4), 45-54.
35. Xayrullayevich, S. H., & Ayubovna, S. M. (2023). BADMINTONCHILAR JISMONIY TAYYORGARLIGI VA UNI RIVOJLANTIRISH METODIKALARI. FORMATION OF PSYCHOLOGY AND PEDAGOGY AS INTERDISCIPLINARY SCIENCES, 2(18), 201-208.
36. Nuriddinov, A., Sayfiyev, H., & Sirojev, S. (2023). WHY FOOTBALL IS THE FIRST SPORT THAT COMES TO MIND TODAY. Modern Science and Research, 2(9), 200-203.
37. Xayrullayevich, S. H., & Ayubovna, S. M. (2023). BADMINTONCHILAR JISMONIY TAYYORGARLIGI VA UNI RIVOJLANTIRISH METODIKALARI. FORMATION OF PSYCHOLOGY AND PEDAGOGY AS INTERDISCIPLINARY SCIENCES, 2(18), 201-208.
38. Ayubovna, S. M., & Xayrullayevich, S. H. (2023). YOSH BOLLALARDA SPORT SPORT GIMNASTIKASINING PEDAGOGIK O'LGHOVLAR NAZARIYASI VA TASHKILIY-METODIK ASOSLARINI TADQIQ ETISHNING MAQSADI, VAZIFALARI. PEDAGOGICAL SCIENCES AND TEACHING METHODS, 2(22), 108-118.
39. Sayfiyev, H., & Saidova, M. (2023). EFFECTS OF GYMNASTICS ON FUNDAMENTAL MOTOR SKILLS (FMS), POSTURAL (BALANCE) CONTROL, AND SELF-PERCEPTION DURING GYMNASTICS TRAINING. Modern Science and Research, 2(9), 204-210.
40. Saidova, M., & Sayfiyev, H. (2023). CONTENT-IMPORTANCE AND PRINCIPLES OF PHYSICAL EDUCATION CLASSES. Modern Science and Research, 2(9), 192-199.
41. Saidova, M. (2023). THE CONCEPT OF PHYSICAL QUALITIES. Modern Science and Research, 2(10), 251-254.