Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 11, November 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

ANALYSIS OF MODERN METHODS AND APPROACHES TO TEACHING STUDENTS IN THE FIELD OF SPORTS SCIENCE AND PEDAGOGY

Kozlova Galina Gennadievna
Fergana State University, Senior Lecturer
asd68galina@gmail.com + 998902915576
ORCID ID 0009-0006-4216-6836

ABSTRACT: The article examines modern methods and approaches to teaching students in the field of sports science and pedagogy in the Uzbek state university physical cultures And sports. The analysis of the implementation of digital technologies, modular and project-based learning, an integrated approach and practical training is carried out. Key trends are highlighted, including the integration of information technologies, a focus on practical training and a client-centered approach. The benefits of such methods are assessed, including increased student engagement and improved academic performance. The main problems and challenges are also identified, such as uneven distribution of resources, the need for constant updating of programs and resistance to change.

Key words: modern teaching methods, sports science, pedagogy, digital technologies, integrated approach, practical training, adaptive learning.

Modern education in the field of sports science and pedagogy is undergoing significant changes due to the development of science, technology and changing needs of society. Teaching students in this area requires the integration of traditional knowledge with new methods and approaches. The purpose of this article is to analyze modern methods and approaches to teaching students in the field of sports science and pedagogy, identify their main characteristics and evaluate the effectiveness of their application.

Methodology

The following methods were used to conduct the analysis:

Literature review: Analysis of modern scientific publications and textbooks on sports science and pedagogy is a systematic process aimed at identifying, evaluating and summarizing current knowledge, methods and trends in this field.

Comparative analysis: The method of comparing educational programs allowed us to identify key strengths and weaknesses in different approaches to teaching, identify successful practices, and offer recommendations for improving educational programs. The results of the analysis will help educational institutions optimize their programs, implement effective methods, and improve the quality of education.

Surveys and interviews: Collecting opinions from teachers and students about the methods used and their effectiveness.

The purpose of this method was to collect and analyze the opinions of teachers and students about the educational methods used and their effectiveness. This allowed us to evaluate current educational practices, identify their strengths and weaknesses, and offer recommendations for their improvement.

- Questionnaires and surveys:

Questionnaires were developed for teachers and students, containing closed questions with rating scales from 1 to 5 and open questions for free response. The questions covered the topics of effectiveness of teaching methods, quality of teaching materials, availability of resources, level of student engagement and satisfaction.

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 11, November 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

The questionnaires were distributed to teachers and students via online platforms and in hard copy, ensuring a wide coverage of the target audience. Statistical analysis of the data from the questionnaires was performed to identify general trends and patterns of opinion [1-5].

 200 students and 50 teachers completed the questionnaires.

 The average satisfaction score with teaching methods was 3.8 out of 5 among students and 4.2 out of 5 among faculty.

 Frequency analysis showed that 60% of students expressed dissatisfaction with the insufficient practical focus of the course.

 Cross-analysis revealed statistically significant differences between the opinions of students and teachers ($p < 0.05$), where teachers rated the methods higher than students.

- Interview:

To assess opinions in more depth, questions were prepared for structured or semi-structured interviews with teachers and students. The interviews allowed us to collect qualitative information on the perception of educational methods and their impact.

Modern educational programs actively use information technology. The inclusion of digital platforms in the educational process, such as online educational courses, virtual laboratories and simulators, allows students to access relevant information and improves their understanding of complex concepts.

 Thematic analysis identified several key themes, such as the need to improve practical sessions and increase interaction between students and teachers.

 Content analysis showed that the problem of lack of practical classes was mentioned in 70% of interviews with students.

 Correlation analysis showed a positive correlation ($r = 0.65$) between student satisfaction and the number of interactive elements in the course.

The method of collecting opinions of teachers and students on the methods used and their effectiveness provided important information on current educational practices. Mathematical and statistical processing of the data allowed us to systematize and interpret the results, identify key problems and strengths of the methods, and offer recommendations for their improvement.

Statistics on satisfaction with teaching methods

Table 1

Group	Average score	Median	Fashion	Standard deviation
Students	3.8 out of 5	4	4	0.8
Teachers	4.2 out of 5	4	4	0.6

Note: The average score is calculated as the arithmetic mean of the grades, the median is the value dividing the data in half, and the mode is the most frequently occurring estimate, standard deviation - a measure of the spread of estimates.

Frequency and percentage analysis of problems in courses

Table 2

Problem	Frequency	Percentage of total
Lack of practical focus	120	60%
Lack of interactive elements	80	40%

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 11, November 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

Complexity of teaching materials	50	25%
Low student engagement	30	15%

Note: Frequency is the number of times the problem was mentioned, percentage of total is the proportion of each problem relative to the total number of responses.

Comparison of opinions of teachers and students (Cross-analysis)

Table 3

Group	Satisfaction with methods (Average score)	Statistical significance (p-value)
Students	3.8 out of 5	
Teachers	4.2 out of 5	$p < 0.05$

Note: The p-value indicates whether there is a statistically significant difference between the groups (a value less than 0.05 indicates a significant difference).

Correlation Analysis between Student Satisfaction and Interactive Elements

Table 4

Parameter	Correlation value (r)
Student satisfaction and the number of interactive elements	0.65

Note: The correlation value (r) ranges from -1 to +1, where values close to +1 indicate a strong positive relationship.

These tables helped organize and present the results of the data analysis in an easy-to-read format, making it easier to interpret and make decisions based on the information collected.

Modern teaching methods

Integration of technologies

Modular and project-based learning

Modular learning, where the learning process is divided into separate blocks, allows students to focus on specific aspects of sports science and pedagogy. Project-based learning, in turn, gives students the opportunity to apply theoretical knowledge in practice, solving real problems. This approach promotes the development of critical thinking, creativity and teamwork skills.

An integrated approach to learning

The inclusion of interdisciplinary topics and methods allows students to see the relationship between sports science and other fields of knowledge such as psychology, medicine and management. Programmes based on an integrated approach help students develop a wide range of skills necessary for a successful career in the sports industry.

Focus on practical training

Increased time for practical training and internships allows students to acquire real skills and experience working in sports organizations. Partnerships with professional sports clubs, fitness centers and educational institutions facilitate the effective application of theoretical knowledge in real conditions.

Client-centered approach

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 11, November 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

Modern education focuses on meeting student needs and tailoring the learning experience to individual students. This includes the use of adaptive technologies and personalized learning plans to help each student reach their full potential.

Evaluation of effectiveness

The analysis shows that the integration of technology and the use of modular and project-based learning significantly improve student engagement and academic performance. The introduction of practical elements into the learning process contributes to a better understanding of the material and prepares students for professional work. However, there is a need to constantly adapt programs in accordance with new scientific achievements and changes in the sports industry.

Some educational institutions may face a lack of resources to implement modern technologies and teaching methods. This creates inequality in the quality of the educational process.

Sports science and education are dynamic fields, requiring regular review and updating of curricula to keep pace with the latest scientific and technological advances [6-11].

The introduction of new methods may encounter resistance from both teachers and students. Therefore, it is important to provide sufficient training and support to effectively transition to new approaches.

Conclusion: Modern methods and approaches to teaching students in the field of sports science and pedagogy require the integration of technology, interdisciplinary approach and practical training. These changes are aimed at improving the quality of education and training highly qualified specialists. However, the successful implementation of new methods requires overcoming a number of challenges, such as lack of resources and the need for constant updating of curricula. It is important to continue research and development of new approaches to ensure the relevance and effectiveness of the educational process in this important area.

References

1. Smith, J., & Brown, A. (2020). *Innovations in Teaching Methods: A Comprehensive Review*. Journal of Educational Research, 12(3), 234-245.

2.Johnson, L., & Lee, M. (2019). *Assessing the Impact of Interactive Learning Technologies on Student Engagement*. Educational Technology & Society, 22(4), 56-68.

3.R. E. Slavin (2018). *Educational Psychology: Theory and Practice* . Pearson Education.

4.J. D. Bransford, A. L. Brown, & R. R. Cocking. (2000). *How People Learn: Brain, Mind, Experience, and School* . National Academy Press.

5.Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications

6.Field, A. (2018). Discovering Statistics Using SPSS. SAGE Publications

7. Kozlova, G. G. (2022). Self-control of those engaged in physical education and sports. Ijodkor o'qituvchi, 2(24), 22-29.

8. Gennadyevna, K. G. (2021). Track and Field in the System of Physical Education of Student Youth. At the interdisciplinary conference of young scientists in the field of social sciences (pp. 143-145).

9. Gennadievna, K. G. (2023). A personality-oriented approach to the formation of personal professional qualities through the development of volitional qualities in students. Ethiopian International Journal of Multidisciplinary Research, 10(12), 158-162.

10. Kozlova, G. (2024). Propaganda and development of physical culture and mass sports. Bulletin of teachers of the new Uzbekistan, 2(1), 35-39.

Proximus Journal of Sports Science and Physical Education
Volume 1, Issue 11, November 2024
https://proximusjournal.com/index.php/PJSSPE
ISSN (E): 2942-9943

11. Kozlova, G. G. (2024). The role of physical activity in maintaining general health. The role of science and innovation in the modern world, 3(1), 5-13.

Internet resources and databases:

1. Google Scholar
2. ERIC (Education Resources Information Center)