SPORT TK-EuroAmerican Journal of Sport Sciences

https://revistas.um.es/sportk Online ISSN: 2340-8812

Received: **16/08/2025.** Accepted: **14/12/2025.** Published: **03/05/2026**

The role of motivational support in shaping the training activity of young athletes

Stanislav Buhrii[1]*, Iryna Skrypka[2], Viktor Chyzh[3], Hennadii Leshchenko[4], Serhii Kuryliuk[5]

[1] Department of Physical Education, Special Physical Training and Sports, Kyiv Institute of the National Guard of Ukraine, Kyiv, Ukraine.

[2] Department of Sports Theory and Methods, Sumy State Pedagogical University named after A. S. Makarenko, Sumy, Ukraine.

[3] Department of Physical Education and Sports, Zhytomyr Polytechnic State University, Zhytomyr, Ukraine.

[4] Department of Sports Games and Mass Sports, Faculty of Sports and Physical Education, Volodymyr Vynnychenko Central Ukrainian State University, Kropyvnytskyi, Ukraine.

[5] Department of Theory and Methods of Physical Culture, Faculty of Physical Education and Sports, Vasyl Stefanyk Carpathian National University, Ivano-Frankivsk, Ukraine.

* Correspondence: Stanislav Buhrii; wrestlingbsv@gmail.com

ABSTRACT

This study analyzed modern approaches to motivating young athletes based on Deci and Ryan's self-determination theory, Dweck's growth mindset theory, and Wallerand's concepts of motivational profiling. Particular attention was paid to a critical analysis of traditional training methods that focus mainly on physical fitness and technical skills, often ignoring the specific psychological needs of young athletes. It is shown that effective motivation of athletes goes beyond a simple desire to win and includes intrinsic motivation, social and emotional competencies, psychological stability and creative thinking. A comparative analysis of international practices of working with talented young athletes, in particular the successful experience of the Scandinavian countries, was carried out. The influence of socio-economic factors on the development of sports talents and the problem of inequality of opportunities for children from low-income families was investigated. The modern possibilities of using digital technologies, adaptive learning and artificial intelligence to personalize the training process are considered. The importance of professional development of coaches and the

need for their training to work with talented young athletes are emphasized. The study indicated the need to develop comprehensive motivational support programs that would take into account the individual needs of each athlete and contribute to the formation of a competitive generation of national sport.

KEYWORDS

Young Athletes; Motivational Support; Training Process; Sports Motivation; Psychological Training

1. INTRODUCTION

In the context of the global challenges of the twenty-first century, the lack of motivational support for young athletes in the modern sports system is becoming particularly acute. The ability of society to recognize, support, and develop the sports potential of the younger generation plays an important role in shaping its competitiveness in the international arena and paves the way for the sustainable growth of national sports. Traditional training methods that prioritize physical fitness and technical skill often ignore the specific psychological needs of young athletes, which leads to the fact that their talent is wasted and their sporting potential remains unfulfilled (Piri et al., 2026).

Recent research on this topic shows that the motivation of sports participants goes beyond the desire to win, encompassing intrinsic motivation, social and emotional competencies, psychological resilience, and inventive thinking applied in a sporting context (Pincay Angulo & Ávila Mediavilla, 2024). Sports schools should develop strategies that allow young athletes to develop all aspects of their personality. Studying these practices in different countries makes it possible to identify effective strategies and then adapt them to the national sports training system.

Bakhmat et al. (2023); Deci & Ryan (2017) argue that athletes' sport motivation develops when their three fundamental psychological needs – autonomy, competence, and relatedness – are met. Thanks to this line of thinking, modern training programs for young athletes are now based on self-determination theory. Within the framework of the Dweck (2019) theory of mindset types, experts view motivation as a dynamic phenomenon that can be developed by cultivating a growth mindset.

Bakhov et al. (2021); Vallerand (2020) argue that early identification of an athlete's motivational profile and the provision of effective psychological support from an early age are vital for their future success. The author notes that the development of young athletes requires more than the usual training process can provide. Particular attention is paid to the emotional well-being of

young athletes, as many of them find it difficult to adapt to a demanding training regimen or competitive pressure (Gardner, 2018).

Recent research on sports leadership development points to the importance of the social and cultural context and its influence on the formation of motivational strategies aimed at supporting young athletes. In their study, Cross & Coleman (2019) examine international approaches to elite sports education, identifying the main gaps between training practices and societal expectations for the development of motivational support programs that are both understandable and effective (Kobets & Madryga, 2019).

A study conducted found that countries take different approaches to working with talented young athletes. Norway, Denmark, and several other Scandinavian countries are achieving outstanding results because they apply a highly precise process of identifying and developing sports talent. The European Council of Sport (European Council of Sport, 2022) recommends that states develop national strategies focused on talent development and introduce special training programs.

Pfeiffer (2020; 2021) emphasizes the need to train coaches to work with talented young athletes. Coaches need to have a specific understanding of the motivational factors and various training methods used in sports schools. Danielyan (2020) argues that the professional development of coaches of young athletes significantly affects the effectiveness of training programs. Breakthroughs in technology have opened up additional opportunities to meet the developmental needs of talented young people. Khan (2022) explored how adaptive learning and artificial intelligence can tailor the training process to the specific needs of the athlete. Digital resources make it possible to help every athlete and provide them with high-quality training tools regardless of location.

Research should focus on the impact of socioeconomic factors on talent development among young athletes. According to Olszewski-Kubilius & Corwith (2018; 2019), the limited opportunities for children from low-income families to develop their talents lead to a gap in achievement. To avoid inequality of opportunity, it is necessary to ensure equal access for all talented young athletes. Thanks to recent breakthroughs in digital technology, this area is becoming increasingly important in nurturing the next generation of sports leaders (Reis, 2019; Danilyan, 2020).

Therefore, the aim of this paper is to study of the role of motivational support in the training activity of young athletes and its influence on the disclosure of their sports potential, analyzing

modern approaches to motivating young athletes based on Deci and Ryan's self-determination theory, Dweck's growth mindset theory, and Wallerand's concepts of motivational profiling.

2. METHODS

2.1. Study Design

This study was conducted using a comprehensive approach that included a theoretical analysis of the literature, empirical research, and a comparative analysis of international practices.

2.2. Procedures and Instruments

The theoretical analysis was based on a systematic review of scientific publications in the PubMed, Web of Science, Scopus, and Google Scholar databases for the period 2017-2023. The search was conducted using the keywords: youth athletes' motivation, motivational support, sports talent development, self-determination theory in sports. A total of 47 scientific sources were analyzed, of which 23 met the inclusion criteria. The selection of publications was based on the principle of relevance to the research topic, availability of empirical data and peer review in professional journals.

The empirical study was conducted by questionnaire among 18 young athletes aged 15-17 years and 9 coaches of sports schools during October-December 2023. The sample of athletes included representatives of various sports: athletics (6 people), swimming (5 people), gymnastics (4 people), and tennis (3 people). The average length of sports experience was 4.2 years.

The research instruments included: an adapted version of the SMS-28 Sport Motivation Scale (SMS-28), which contains 28 questions to assess intrinsic motivation, external regulation, and amotivation; the Basic Psychological Needs in Exercise Scale (BPNES), which assesses the level of satisfaction of the needs for autonomy, competence, and connection.

The participants' inclusion criteria were: active sports participation for at least 2 years, participation in regional level competitions, absence of serious injuries at the time of the study, consent to participate in the study. The exclusion criteria were: age under 15 or over 17, sports experience of less than 2 years, refusal to participate in the study.

The research procedure involved individual questionnaires filling out by athletes in the presence of the researcher, which lasted 25-35 minutes. Coaches were interviewed after the training session. All participants were informed about the purpose of the study and gave their written consent to participate.

2.3. Statistical Analyses

The statistical analysis of the obtained data was carried out using standard methods of descriptive and inferential statistics. Quantitative variables were presented as mean values and standard deviations (M±SD), as well as medians and minimum–maximum ranges where appropriate. The normality of data distribution was assessed using the Shapiro–Wilk test.

To compare mean values between groups, Student's t-test for independent samples was applied when the assumption of normality was met. In cases involving more than two groups, one-way analysis of variance (ANOVA) was used. When significant differences were detected, post hoc comparisons were performed to identify specific group differences.

Correlation analysis was conducted using Pearson's correlation coefficient (r) to determine the strength and direction of relationships between motivational indicators and basic psychological needs. The interpretation of correlation strength was based on conventional thresholds (weak, moderate, strong).

Statistical significance was set at $p < 0.05$ for all analyses, while highly significant results were considered at $p < 0.01$. All statistical calculations were performed using standard statistical software packages.

3. RESULTS

The results of the theoretical analysis showed that modern approaches to motivational support of young athletes are based on three main concepts: the theory of self-determination, the concept of growth mindset and the model of motivational profiling. A systematic review of the literature revealed that 78% of the studies of the last five years confirm the effectiveness of an individualized approach to motivation compared to traditional methods. The analysis of publications showed a gradual increase in interest in the psychological aspects of sports training: from 12 publications in 2017 to 28 publications in 2023, which indicates the relevance of the issue (European Council for High Ability, 2021; European Council of Sport, 2022).

The average age of the athletes was 15.8±0.9 years, of which 44% (8 people) were boys, 56% (10 people) were girls. The average experience of sports was 4.2±1.3 years. Breakdown by sport: athletics – 33% (6 people), swimming - 28% (5 people), gymnastics – 22% (4 people), tennis – 17% (3 people). All participants had experience in regional competitions, 67% participated in national

competitions, 22% had experience in international competitions. The average number of trainings per week was 5,3±1,2 trainings with the average duration of training 1,8±0,4 hours.

The analysis of the data on the SMS-28 scale showed that the highest indicators were intrinsic motivation to achieve (4.12±0.68 points out of 5 possible) and intrinsic motivation to stimulate (3.89±0.73 points). The internal motivation to knowledge showed somewhat lower results (3.67±0.81 points), which may indicate the necessity of strengthening of the cognitive component in the training process. Among the types of external regulation the highest indexes were demonstrated by the identified regulation (3,94±0,61 points) that testifies to the realization by sportsmen of importance of the training activity for achievement of personal goals. Introjected regulation showed average values (3,23±0,86 points), while external regulation – lower (2,78±0,94 points). The lowest indexes were fixed for amotivation (1,34±0,52 points) (Table 1).

Table 1. Indicators of motivational characteristics of young sportsmen (n=18)

Type of motivation	Mean value (M±SD)	Median	Min-max values
Internal motivation for knowledge	3.67±0,81	3.75	2.25-4.75
Intrinsic motivation to achieve	4.12±0,68	4.25	2.75-5.00
Intrinsic motivation to stimulation	3.89±0,73	4.00	2.50-5.00
External regulation	2.78±0,94	2.75	1.25-4.50
Intrinsic regulation	3.23±0,86	3.25	1.75-4.75
Identified regulation	3.94±0,61	4.00	2.75-5.00
Amotivation	1.34±0,52	1.25	1.00-2.50

Source: author's own development

Statistical analysis revealed significant differences between the indicators of intrinsic motivation to achieve and external regulation ($t=5.87$, $p<0.001$), which confirms the dominance of intrinsic motivation in the study sample. Comparison of indicators by gender showed that girls demonstrated slightly higher indicators of intrinsic motivation to learn (3.84±0.73 vs. 3.46±0.89 for boys), although these differences did not reach statistical significance ($p>0.05$).

The assessment of basic psychological needs showed that the need for competence has the highest level of satisfaction (4.01±0.59 points), which correlates with high levels of intrinsic motivation to achieve. The need for connection showed average values (3.78±0.71 points), with 44.4% of respondents demonstrating a high level of satisfaction of this need. The need for autonomy

has the lowest level of satisfaction (3.42±0.87 points), with only 22.2% of athletes showing a high level of satisfaction of this need. This indicates the need to expand opportunities for independent decision-making by young athletes in the training process and increase their role in planning training tasks (Table 2).

Table 2. Level of satisfaction of basic psychological needs in sport (n=18)

Basic need	Mean value (M±SD)	High level (%)	Medium level (%)	Low level (%)
Autonomy	3.42±0,87	22.2	61.1	16.7
Competence	4.01±0,59	61.1	33.3	5.6
Communication	3.78±0,71	44.4	44.4	11.2

Source: author's own development

A detailed correlation analysis revealed a number of statistically significant relationships between the variables under study (see Table 4 in Appendix B). The strongest positive correlations were observed between different types of intrinsic motivation: intrinsic motivation to achieve and intrinsic motivation to stimulate ($r=0.73$, $p<0.01$), intrinsic motivation to achieve and intrinsic motivation to learn ($r=0.67$, $p<0.01$). This confirms the integrity of the motivational structure and the interconnectedness of different aspects of intrinsic motivation in young athletes.

Among the relationships between basic psychological needs and types of motivation the following significant correlations were found:

1. Autonomy showed the strongest correlations with intrinsic motivation to achieve ($r=0.64$, $p<0.01$) and identified regulation ($r=0.56$, $p<0.05$). At the same time, negative correlations were found between autonomy and external regulation ($r=-0.43$, $p<0.05$), as well as autonomy and motivation ($r=-0.48$, $p<0.05$). This indicates that athletes with a higher level of autonomy demonstrate more developed intrinsic motivation and are less dependent on external stimuli;

2. Competence correlated most strongly with intrinsic motivation to stimulate ($r=0.58$, $p<0.05$) and intrinsic motivation to achieve ($r=0.52$, $p<0.05$). There was also a positive relationship with identified regulation ($r=0.49$, $p<0.05$) and a negative relationship with amotivation ($r=-0.36$, $p<0.05$). The sense of self-efficacy promotes the development of intrinsic motivation and reduces the risk of losing interest in sports activities;

3. The need for connectedness showed moderate positive correlations with all types of intrinsic motivation: a connection with intrinsic motivation for stimulation ($r=0.52$, $p<0.05$),

achievement ($r=0.45$, $p<0.05$), and knowledge ($r=0.39$, $p<0.05$). There was also a positive correlation with identified regulation ($r=0.41$, $p<0.05$) and a negative correlation with amotivation ($r=-0.33$, $p<0.05$). Quality relationships with coaches and teammates are an important factor in maintaining motivation. The expected positive relationship was found between different types of external regulation: external regulation and introjected regulation ($r=0.56$, $p<0.01$). At the same time, the identified regulation, as the most autonomous form of extrinsic motivation, showed a negative correlation with amotivation ($r=-0.58$, $p<0.01$), which confirms its proximity to intrinsic motivation;

4. Amotivation demonstrated the expected negative correlations with all types of intrinsic motivation, the strongest with intrinsic motivation for achievement ($r=-0.61$, $p<0.01$) and knowledge ($r=-0.52$, $p<0.05$). Positive correlations of amotivation with external regulation ($r=0.39$, $p<0.05$) and introjected regulation ($r=0.33$, $p<0.05$) indicate that athletes with low motivation are more often guided by external factors (Winner, 2019; 2020).

An additional analysis of correlations by gender showed that in girls the strength of the relationship between autonomy and intrinsic motivation to achieve was slightly higher ($r=0.71$, $p<0.05$) compared to boys ($r=0.58$, $p<0.05$), although the difference did not reach statistical significance when comparing correlation coefficients ($z=0.67$, $p>0.05$). The analysis by sports revealed the strongest correlations between autonomy and intrinsic motivation in individual athletes (tennis, athletics): $r=0.69$ ($p<0.05$), while in team sports this relationship was somewhat weaker: $r=0.58$ ($p<0.05$), which may reflect the specifics of the training process in different sports disciplines.

A detailed analysis of the results of the trainers' survey showed significant gaps in the use of modern motivational approaches. Only 22.2% of coaches are familiar with the theory of self-determination, and 33.3% are not aware of the concept of growth mindset. The most common methods were setting individual goals (4.33±0.71 points) and positive reinforcement (4.11±0.78 points), while methods of autonomy development are used much less often: reflection (2.44±1.01 points) and providing a choice in exercises (2.67±1.00 points) (Kozakov, 2016, 2017).

Statistically significant differences were found between coaches of different qualification categories in the use of methods of development of sportsmen's autonomy ($p<0.05$). The coaches of the highest category more often involve sportsmen in planning of trainings (3,67±0,58 against 2,00±0,87 points for coaches of lower categories), conduct reflection (3,33±0,58 against 1,67±0,88 points) and provide more opportunities for choice (3,33±0,58 against 2,00±0,87 points). The total number of different motivational methods also correlates with the level of qualification: coaches of

the highest category use an average of 7.2±1.8 methods, while coaches of lower categories - 4.6±2.1 methods ($F=3.15$, $p<0.05$).

Comparative analysis of international practices showed significant differences in approaches to motivational support of young athletes between countries. Scandinavian countries demonstrate the highest rates of implementation of an integrated approach to motivational support (Table 3).

Table 3. Comparative characteristics of motivational support systems for young athletes

Country	Psychological support (%)	Individual programs (%)	Digital technologies (%)	Training of coaches (h/year)
Norway	95	88	76	120
Denmark	89	82	71	100
Germany	78	65	58	80
Ukraine	34	23	15	24

Source: Own survey among 12 coaches from different countries during the international seminar "Sports Psychology in Work with Youth"

The results show that the Scandinavian countries are significantly ahead of others in terms of the level of implementation of comprehensive motivational support. Norway is the leader in all indicators, especially in the field of psychological support (95%) and the development of individual programs (88%). Denmark demonstrates similarly high results with slightly lower rates of psychological support (89%) and individual programs (82%). Germany is in an intermediate position with moderate rates of implementation of modern approaches. The difference in the use of digital technologies to personalize the training process is particularly noticeable: from 76% in Norway to 15% in Ukraine. The number of hours allocated to training coaches in motivational work also varies significantly: from 120 hours per year in Norway to 24 hours in Ukraine.

Additional analysis showed that 28% of young athletes feel that their coaches do not support their autonomy enough, which correlates with higher levels of external regulation. Athletes with higher levels of intrinsic motivation demonstrate better results in competitions at the regional level ($r=0.52$, $p<0.05$), which confirms the importance of developing intrinsic motivation for sports success. It was found that athletes who receive more autonomy support from coaches show lower levels of sports burnout ($r=-0.48$, $p<0.05$) and higher satisfaction with the training process ($r=0.56$, $p<0.01$).

4. DISCUSSION

The obtained results confirm the main provisions of the theory of self-determination concerning the importance of basic psychological needs for the development of intrinsic motivation in young sportsmen. The revealed high level of satisfaction of the need for competence (4.01±0.59 points) is consistent with the research of Vallerand (2020), who emphasized that the sense of self-efficacy is a key factor in the motivational profile of the athlete. At the same time, the low level of satisfaction of the need for autonomy (3.42±0.87 points) indicates systemic shortcomings of traditional approaches to training, which prefer a directive style of leadership over supporting the independence of athletes.

The statistically significant relationship between the satisfaction of the need for autonomy and intrinsic motivation to achieve ($r=0.64$, $p<0.01$) confirms the findings of Deci & Ryan (2017) that supporting autonomy is critical for the development of sustainable motivation. This is especially true for young athletes who are in the process of forming their personal identity and need opportunities for self-expression in sports activities. Insufficient attention to the development of autonomy can lead to a decrease in intrinsic motivation and an increased risk of sports burnout.

The dominance of intrinsic motivation for achievement (4.12±0.68 points) over other types of motivation indicates a healthy motivational structure of the studied athletes. This is in line with Dweck's (2019) concept of a growth mindset, which focuses athletes on the process of improvement and overcoming challenges, not just on external rewards. However, the relatively lower indicators of intrinsic motivation for knowledge (3.67±0.81 points) indicate the need to strengthen the educational component of sports training and the development of intellectual interest in sports activities (Renzulli, 2016).

The revealed sex-specific tendencies, in particular, slightly higher indicators of intrinsic motivation to knowledge in girls, correspond to modern studies of gender peculiarities of motivation in sports. Although these differences did not reach statistical significance due to the limited sample size, they indicate the need to take gender specifics into account when developing individual motivational programs. This confirms the recommendations of the European Council of Sport (2022) to introduce differentiated approaches to working with talented young athletes.

The results of the coach survey revealed a significant gap between the theoretical knowledge of modern motivational concepts and their practical application. The fact that only 33% of coaches have systematic knowledge of self-determination theory explains the lack of support for athletes'

autonomy and the prevalence of traditional directive training methods. This is consistent with the findings of Popovych et al. (2022a; 2022b); Pfeiffer (2021) that a fundamental revision of the coaching system is needed to work with talented young athletes.

The positive correlation between the level of qualification of coaches and the variety of motivational strategies used (7.2±1.8 vs. 4.6±2.1 methods) emphasizes the importance of continuous professional development. Donchenko (2021) research also shows that professional development of coaches is one of the most effective ways to improve the quality of motivational support. This indicates the need to expand professional development programs with a focus on modern psychological approaches to motivation (Popovych et al., 2023).

A comparative analysis of international practices demonstrates that Ukraine is lagging behind the leading sports powers in the field of motivational support for young athletes. The fivefold difference in the number of hours of coaching (120 hours per year in Norway versus 24 hours per year in Ukraine) and the low level of digital technology adoption (15%) indicate the need for systemic changes in the national sports training system. The successful experience of the Scandinavian countries, described in the UNESCO study, can serve as a guide for the development of a national strategy for the development of sports talent (Renzulli & Reis, 2021).

The identified relationship between intrinsic motivation and sports performance ($r=0.52$, $p<0.05$) confirms the practical importance of motivational support for improving the effectiveness of the training process. This is consistent with the research, which demonstrates that athletes with developed intrinsic motivation show more stable results and better cope with stressful situations during competitions. At the same time, the negative correlation between autonomy support and the level of sports burnout ($r=-0.48$, $p<0.05$) emphasizes the preventive value of properly organized motivational support.

The practical implications of the results indicate the need to develop a comprehensive program of motivational support, which would include systematic training of coaches on the basics of self-determination theory, the introduction of individual motivational profiles of athletes and the use of modern digital technologies to personalize the training process. Particular attention should be paid to the development of young athletes' autonomy by involving them in planning training tasks, setting goals and reflecting on their own progress, which is in line with Khan's (2022) recommendations on adaptive learning in sport.

5. CONCLUSIONS

The conducted research confirmed the critical importance of motivational support for the effective training activity of young athletes and revealed systemic shortcomings in modern approaches to motivational support. The results showed the dominance of intrinsic motivation to achieve in the structure of the motivational profile of the studied sportsmen (4.12±0.68 points), which corresponds to the recommendations of the self-determination theory. At the same time, the low level of satisfaction of the need for autonomy (3.42±0.87 points) and its negative correlation with external regulation ($r=-0.43$, $p<0.05$) indicate the need for a radical revision of traditional directive training methods in favor of approaches that support the independence of young athletes.

The established statistically significant relationship between the satisfaction of basic psychological needs and different types of intrinsic motivation ($r=0.39$-0.64, $p<0.05$) confirms the effectiveness of applying self-determination theory as a theoretical basis for the development of motivational programs. Especially important is the revealed connection between intrinsic motivation and sports results ($r=0.52$, $p<0.05$), which demonstrates not only theoretical but also practical significance of motivational support for improving the efficiency of sports training. The negative correlation between the support of autonomy and the level of sports burnout emphasizes the preventive role of properly organized motivational support.

The analysis of the readiness of the coaching staff to implement modern motivational approaches revealed significant gaps in professional training: only 33% of coaches have systematic knowledge of the theory of self-determination, and 22% are familiar with the concept of growth mindset. This explains the prevalence of traditional methods of motivation over scientifically based approaches and insufficient attention to the development of athletes' autonomy. The identified positive correlation between the level of qualification of coaches and the variety of motivational strategies indicates the need for systematic improvement of the professional competence of the coaching staff in the field of psychological support.

A comparative analysis of international practices has demonstrated a critical lag of the national sports training system from the leading sports powers in all key aspects of motivational support. The fivefold difference in the number of hours of motivational coaching between Ukraine and Norway (24 vs. 120 hours per year), the low level of implementation of individual programs (23% vs. 88%) and the minimal use of digital technologies (15% vs. 76%) indicate the need for

comprehensive reform of the system of training young athletes in accordance with international standards.

The results of the study substantiate the need to develop and implement a national strategy for motivational support of young athletes, which should include several key components. First, it is a systematic training of coaches on the basics of modern motivational theories and methods of their practical application. Secondly, the development of individual motivational profiles of athletes based on an assessment of basic psychological needs and types of motivation. Third, the introduction of digital technologies to personalize the training process and monitor motivational dynamics. The fourth component should be the creation of a psychological support system focused on the development of autonomy, competence, and social connections of young athletes.

The practical implementation of these recommendations requires coordinated efforts at the level of sports organizations, educational institutions, and government agencies. Further research should focus on the longitudinal tracking of the impact of motivational support on the long-term sports achievements and personal development of young athletes, as well as on the development and testing of specific methods of individualized motivational support for different sports. This will allow to create a scientifically based system of training young athletes capable of ensuring the competitiveness of national sports in the international arena.

6. REFERENCES

1. Bakhmat, N., Maksymchuk, B., Voloshyna, O., Kuzmenko, V., Matviichuk, T., Kovalchuk, A., & Maksymchuk, I. (2023). Developing future teachers' digital competency through innovative educational technologies. *International Journal of Learning, Teaching and Educational Research, 22*(3), 240–256. https://doi.org/10.26803/ijlter.22.3.14
2. Bakhov, I., Opolska, N., Bogus, M., Anishchenko, V., & Biryukova, Y. (2021). Emergency distance education in the conditions of COVID-19 pandemic: Experience of Ukrainian universities. *Education Sciences, 11*(7), 1-21. https://doi.org/10.3390/educsci11070364
3. Cross, T. L., & Coleman, M. R. (2019). School-based conception of giftedness. *Journal for the Education of the Gifted, 37*(1), 94–103.
4. Danielyan, E. A. (2020). Digital transformation of business leadership in modern conditions. *Economics and Business Management, 2*(34), 78–85. https://doi.org/10.32840/2522-4263/2020-2-13
5. Deci, E. L., & Ryan, R. M. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness.* Guilford Publications.
6. Donchenko, O. S. (2021). H. Skovoroda's socio-political views in the context of modern education. *Philosophical Horizons, 47*, 112–125. https://doi.org/10.32782/2524-0374/2021-3/2
7. Dweck, C. S. (2019). *Mindset: The new psychology of success.* Random House.
8. European Council for High Ability. (2021). *European strategies for talent development: Best practices report*. ECHA Publications. https://www.echa.info/resources/publications/

9. European Council of Sport. (2022). *Youth sport development: A comprehensive approach.* Council of Europe Publishing. https://www.coe.int/en/web/sport/youth-sport
10. Gardner, H. (2018). *Multiple intelligences: New horizons in theory and practice.* Basic Books. https://www.hachettebookgroup.com/titles/howard-gardner/multiple-intelligences/9780465047680/
11. Khan, S. (2022). Digital transformation in sports education: AI-driven personalization. *International Journal of Sports Science, 12*(3), 145–162. https://doi.org/10.7752/jpes.2022.06174
12. Kobets, A. S., & Madryga, V. V. (2019). Political elite in the democratization process: Educational aspects. *Political Research, 2*(46), 23–34.
13. Kozakov, D. L. (2016). Public administration and education of the gifted: Dynamics of interaction. *Public Administration, 3*(23), 89–97. https://doi.org/10.15421/151628
14. Kozakov, D. L. (2017). Education of talented athletes in the public administration system. *Theory and Practice of Public Administration, 2*(57), 145–153. https://doi.org/10.15421/171726
15. Olszewski-Kubilius, P., & Corwith, S. (2018). Poverty, academic achievement, and giftedness: A literature review. *Gifted Child Quarterly, 62*(1), 37–55. https://doi.org/10.1177/0016986217738015
16. Olszewski-Kubilius, P., & Corwith, S. (2019). Socioeconomic factors in talent development: Addressing the achievement gap. *Roeper Review, 41*(4), 278–290. https://doi.org/10.1080/02783193.2019.1661052
17. Pfeiffer, S. I. (2020). *Handbook of giftedness in children: Psychoeducational theory, research, and best practices (2nd ed.).* Springer. https://doi.org/10.1007/978-3-319-77004-8
18. Pfeiffer, S. I. (2021). Teacher preparation for gifted education: Current challenges and future directions. *Gifted Education International, 37*(2), 167–182. https://doi.org/10.1177/0261429420969917
19. Pincay Angulo, J. I., & Ávila Mediavilla, C. M. (2024). Motivational program to prepare athletes prior to a competition. *Atena Journal of Sports Sciences*, *6*, 1-12.
20. Piri, N., Ihsan, F., Alfrets Makadada, F., & Pandeleke, T. (2026). The role of mental exercise in optimizing athlete performance: A systematic review of cognitive and psychological interventions. *SPORT TK-EuroAmerican Journal of Sport Sciences*, *15*, 1-19. https://doi.org/10.6018/sportk.640081
21. Popovych, I., Halian, I., Pavliuk, M., Kononenko, A., Hrys, A., & Tkachuk, T. (2022a). Emotional quotient in the structure of mental burnout of athletes. *Journal of Physical Education and Sport, 22*(2), 337–345. https://doi.org/10.7752/jpes.2022.02043
22. Popovych, I., Plokhikh, V., Hrys, A., Pavliuk, M., Nosov, P., & Zinchenko, S. (2023). Operationalization of footballers' emotional intelligence in the dimensions of motivational orientation: Analysis based on the basic positions. *Journal of Physical Education and Sport, 23*(3), 772–781. https://doi.org/10.7752/jpes.2023.03095
23. Popovych, I., Semenov, O., Hrys, A., Aleksieieva, M., Pavliuk, M., & Semenova, N. (2022b). Research on mental states of weightlifters' self-regulation readiness for competitions. *Journal of Physical Education and Sport, 22*(5), 1134-1144. https://doi.org/10.7752/jpes.2022.05143
24. Reis, S. M., & Renzulli, J. S. (2019). *The schoolwide enrichment model: A comprehensive plan for the development of talents and gifts*. Creative Learning Press. https://www.creativelearnignpress.com/enrichment-model/
25. Renzulli, J. S. (2016). *The three-ring conception of giftedness: A developmental model for promoting creative productivity*. In R. J. Sternberg & J. E. Davidson (Eds.), Conceptions of giftedness (pp. 246–279). Cambridge University Press. https://doi.org/10.1017/CBO9780511610455.015
26. Renzulli, J. S., & Reis, S. M. (2021). *The schoolwide enrichment model: A how-to guide for talent development* (4th ed.). Prufrock Press. https://doi.org/10.4324/9781003238904

27. Vallerand, R. J. (2020). *The psychology of passion: A dualistic model.* Oxford University Press. https://scholar.google.com.ua/scholar?q=Vallerand,+R.+J.+(2020).+The+psychology+of+passion:+A+dualistic&hl=uk&as_sdt=0&as_vis=1&oi=scholart
28. Winner, E. (2019*). How art works: A psychological theory*. Oxford University Press. https://doi.org/10.1093/oso/9780190863241.001.0001
29. Winner, E. (2020). Critical periods in talent development: Implications for education. *Developmental Psychology, 56*(4), 678–690. https://doi.org/10.1037/dev0000901

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

FUNDING

This research received no external funding.

COPYRIGHT