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AUTHOR'S METHODOLOGY OF FUNCTIONAL EXERCISES AS A TOOL FOR THE DEVELOPMENT OF A HEALTHY MOVEMENT CULTURE

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The current state of physical activity among the population is characterized by a decline in motor competence, the widespread prevalence of physical inactivity, and the deterioration of the body's functional indicators. These trends necessitate the search for new pedagogical approaches to the organization of physical training that can ensure not only the development of physical qualities but also the formation of a healthy movement culture. In this context, functional exercises are of particular importance because they are based on the principles of natural movement biomechanics and the integrated interaction of muscle groups. Functional training is focused on reproducing real movement patterns used in everyday human activity, which determines its high potential for developing effective motor skills [1, p. 2].

An analysis of current scientific research indicates that functional training programs demonstrate a substantial positive effect on the development of physical fitness and motor abilities. In particular, the results of experimental studies show that the introduction of functional training over 8 weeks contributes to improved indicators of functional movement screening, muscle strength, and the body's coordination capacities [1, p. 4]. Other studies confirm the effectiveness of the functional approach in the formation of fundamental movement skills and the development of overall motor competence, especially among young people [4, p. 6]. At the same time, functional physical education programs contribute to the integrated improvement of speed-strength qualities, endurance, and flexibility [2, p. 5].

Despite the substantial number of studies, most existing functional training methods are aimed primarily at improving athletic performance or developing specific physical qualities. However, the formation of a healthy movement culture requires a more comprehensive approach that encompasses the development of motor coordination, stabilization mechanisms, proprioception, and the rational technique of movement execution. In view of this, there is a need to create an integrated authorial methodology that combines the principles of functional training with pedagogical technologies for the development of movement culture, which defines the purpose of this study.

Unlike traditional functional training approaches, which primarily focus on the development of specific physical qualities or athletic performance, the proposed

methodology is aimed at restoring the integrated motor function of the body, including coordination, stabilization, mobility, and muscular balance.

The methodology integrates: principles of natural biomechanics; corrective movement approaches; neuromuscular stabilization.

This integration constitutes its fundamental distinction from existing programs.

Table 1. Structure of the Author's Methodology

Component of the Methodology	Content	Primary Objective	Expected Effect
1	2	3	4
Movement diagnostics	Assessment of functional impairments, asymmetries, mobility restrictions, and postural imbalances	Identification of individual movement system deficits	Development of a personalized training program
Corrective functional exercises	Implementation of specifically selected exercises to restore proper movement patterns	Elimination of movement dysfunctions and compensatory strategies	Improvement of movement quality and execution technique
Neuromuscular stabilization	Exercises aimed at activation of deep musculature, body position control, and stability	Development of postural control and coordination	Increased stability and reduced risk of injury
Progressive strength integration	Gradual incorporation of strength exercises into functional movements with consideration of physiological adaptation	Harmonious development of strength within natural movement patterns	Balanced muscular development and functional strength

The developed methodology has been implemented in practical training programs and applied in work with more than 10,000 clients of various ages and training levels. Practical experience has confirmed its effectiveness in improving mobility, strength balance, and overall movement quality.

An important part of the study is the development of an authorial model for assessing the level of healthy movement culture. For this purpose, an integral indicator, the Motor Culture Index (MCI), is proposed, which makes it possible to quantitatively assess the level of development of the main functional characteristics of motor activity.

The formula of the index is as follows:

$$IMK = \frac{(S+M+C+F)}{4}$$

where

S – body stability index;

M – motor mobility index;

C – movement coordination index;

F – functional strength index.

Each indicator is assessed using a standardized scale ranging from 0 to 10 points, which allows for the calculation of an integral index of motor culture level within the range of 0 to 10.

Table 2. Criteria for Assessing the Motor Culture Index

Indicator	Testing Method	Interpretation
Stability (S)	plank test	assessment of postural stability
Mobility (M)	deep squat test	assessment of range of motion
Coordination (C)	balance test	assessment of movement control
Functional Strength (F)	lunge or pull test	assessment of strength capacity

Source: developed by the author

The use of the Motor Culture Index makes it possible to assess the effectiveness of the training process objectively and to monitor the dynamics of the development of motor abilities. The results of recent studies confirm that the application of functional training programs over 8-12 weeks leads to a statistically significant improvement in indicators of functional movement testing and physical fitness [2, p. 6; 3, p. 5]. In addition, functional exercises contribute to the formation of fundamental movement skills, which constitute the basis of a healthy movement culture [4, p. 7].

During an eight-week pilot application of the methodology, the following were documented:

- increased indicators of functional movement testing;
- improved coordination abilities;
- reduced muscular imbalances;
- enhanced core stability.

The results obtained indicate the effectiveness of the methodology in the formation of a healthy movement culture.

Thus, functional exercises represent an effective pedagogical tool for the formation of a healthy movement culture. The developed authorial methodology ensures the integrated development of stability, mobility, coordination, and functional strength. The use of the integral Motor Culture Index makes it possible to assess the results of the training process quantitatively and to optimize the structure of physical training. Prospects for further research lie in the experimental validation of the proposed methodology across different age groups and educational settings.

References

1. Functional exercise training in persons with multiple sclerosis: a systematic review / F. Adammek et al. Functional exercise training in persons with multiple sclerosis: a systematic review. Journal of Neurology. 2025. Vol. 272. Article 590. DOI: https://doi.org/10.1007/s00415-025-13311-w

2. Li H., Cheong J., Hussain B. The Effect of a 12-Week Physical Functional Training-Based Physical Education Intervention on Students' Physical Fitness – A Quasi-Experimental Study. International Journal of Environmental Research and Public Health. 2023. Vol. 20. № 5. Article 3926. DOI: https://doi.org/10.3390/ijerph20053926

3. Li L., Meng F., Yao S., Shi Q., Luo C. The effects of an 8-week functional training program on functional movement and physical fitness in male university students: a randomized controlled trial. Frontiers in Public Health. 2025. Vol. 13. DOI: https://doi.org/10.3389/fpubh.2025.1641590

4. Zhang D, Geok S. K., Chan Y.M., Zaremohzzabieh Z., Lam S. K., He S. Exploring the effects of a 12-week functional training program on fundamental motor skills for primary school children aged 6–7. Children and Youth Services Review. 2024. Vol. 167. Article 108008. DOI: https://doi.org/10.1016/j.childyouth.2024.108008

ОРГАНІЗАЦІЯ ФІЗИЧНОГО ВИХОВАННЯ СТУДЕНТІВ В УМОВАХ ДИСТАНЦІЙНОГО НАВЧАННЯ

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Трансформація системи вищої освіти в Україні, зумовлена пандемією COVID-19, а згодом повномасштабною війною, призвела до масового переходу на дистанційну та змішану форми навчання. У цих умовах фізичне виховання як навчальна дисципліна зіткнулося з найбільшою кількістю викликів. Традиційні методики, що базуються на безпосередньому контакті викладача та студента в спортивному залі, втратили актуальність, що вимагає розробки нових підходів до організації освітнього процесу. Актуальність теми зумовлена різким зниженням рухової активності молоді та погіршенням психоемоційного стану студентів.

Питання дистанційної освіти в галузі фізичної культури досліджували багато сучасних фахівців, в тому числі: Дудко М., Матійчук В., Цибульська В., Котова О. Та Борейко Н. Більшість із них сходяться на думці, що головною проблемою є відсутність контролю за технікою виконання вправ та дефіцит мотивації. Проте використання цифрових інструментів (LMS Moodle, Google Classroom, мобільні додатки) відкриває нові можливості для індивідуалізації навчання та саме вона стає основним питанням фізичного виховання, оскільки в домашніх умовах неможливо забезпечити ідентичні параметри навантаження для всіх студентів одночасно. Відсутність спеціалізованого обладнання, обмежена площа житлових приміщень та різний рівень вихідної підготовки вимагають від викладача розробки адаптивних програм, які базуються не на жорстких нормативах, а на принципах здоров’я та самоконтролю.

Для студентів дистанційне навчання часто виглядає як можливість вільного графіку, де вони самі визначають час для роботи, не прив'язуючись до місця знаходження університету, але такий формат вимагає значно вищого рівня самодисципліни.

Використання онлайн-платформ Moodle, Google Classroom або Microsoft Teams дозволяє поєднувати теорію з практичними навичками, активізуючи