Academicia Review-A Multidisciplinary Online Journal
ISSN (Online): 3070-6726
Website: https://academicia.org
Volume 2, Issue 6, June, 2026

Formation of Rhythmic Coordination of Collective Actions in Health Aerobics Participants

Формирование ритмичности коллективных действий у занимающихся оздоровительной аэробикой

“Sog‘lomlashtiruvchi aerobika bilan shug‘ullanuvchilarda jamoaviy harakatlarning ritmiyligini shakllantirish”

Ruzibaeva M.E. Associate Professor, Department of Social Sciences and Physical Education, **Tashkent University of Economics and** Pedagogy**.**

Abstract: The visual appeal and coherence of composition structures, as well as the success of performance execution, depend on the level of developed collective actions. The authors have developed methodologies, tools, and methods that improve not only rhythmic and coordinated motor actions, but also enhance the physical fitness of participants.

Аннотация: Зрелищность и стройность построения композиций, успешность исполнения зависят от уровня сформировавшихся коллективных действий. Авторами разработаны методики средств и методов, совершенствующих не только ритмическое и пропорциональное двигательное действие, но и повышающих физическую подготовленность занимающихся.

Annotatsiya: Kompozitsiyalarning ko‘rkamligi va uyg‘un tuzilishi, ijro etish muvaffaqiyati shakllangan jamoaviy harakatlar darajasiga bog‘liq. Mualliflar tomonidan nafaqat ritmik va proporsional harakat faoliyatini takomillashtiruvchi, balki shug‘ullanuvchilarning jismoniy tayyorgarligini ham oshiruvchi vosita va usullar metodikasi ishlab chiqilgan.

Academicia Review-A Multidisciplinary Online Journal
ISSN (Online): 3070-6726
Website: https://academicia.org
Volume 2, Issue 6, June, 2026

Keywords: rhythmicity, health aerobics, collective rhythm, stimulated development.
Ключевые слова: ритмичность, оздоровительная аэробика, коллективный ритм, стимулируемое развитие.

In the system of fundamental motor coordination, rhythmicity occupies a special place. Thanks to the ability to organize motor activity, new movement patterns (algorithms) are formed, which leads to the ordering of the interaction of elements of the motor act and the achievement of harmony. Therefore, movements based on rhythm are characterized by logical structure, coordination, visual appeal, and ensure a holistic perception of the composition {1,2,4}.

Aerobics is characterized by group performances. Their visual appeal is determined by the level of development of a specific type of rhythmicity — collective rhythm. This type is characterized by achieving complete unity of actions among all team members, as well as the ability to accurately perceive and reproduce exercises according to their spatial, temporal, and force parameters. The composition of group performances includes static and dynamic poses; multidirectional movements based on changes in tempo characteristics and continuous redistribution of muscular effort {3–5}.

This places high demands on the development of proprioceptive sensitivity and the entire system of analyzers, as well as their interaction; and on the development of the emotional sphere, which determines the level of formation of the aesthetic component of physical exercises. The formation of collective rhythm is a complex process, the results of which are determined by a combination of thoughts and images, the ability to adequately reproduce their main parameters, and an understanding of the structural features that constitute motor rhythm.

Thus, the unity, coordination, and proportionality of team actions constitute the main content of collective rhythm, and the success of team performances depends on the level of its development {3}.

The aim of this study is to develop and test the effectiveness of a methodology for developing collective rhythm in the participants of aerobics. In order to achieve the set objectives, a pedagogical experiment was conducted involving 67 female students aged 18–20. An experimental group (EG, 34 participants) and a control group (CG, 33 participants) were organized. They trained for 10 months

Academicia Review-A Multidisciplinary Online Journal
ISSN (Online): 3070-6726
Website: https://academicia.org
Volume 2, Issue 6, June, 2026

under the guidance of the same instructor. The control group (CG) was trained using the traditional methodology, mastering exercises provided by the physical education curriculum. In the experimental group (EG), alongside conventional means, special motor tasks aimed at developing collective rhythm were used.

Before the experiment began, the level of physical fitness was assessed based on the following main types of physical exercises:

- 500 m run;
- long jump (standing);
- shuttle run (change of direction running);
- high jump (standing);
- maintaining a prescribed position (standing vertically on the toes of one leg, with the other leg bent at the knee and the foot pressed against the knee of the supporting leg – 5 seconds).

Among the specific motor tasks aimed at determining the level of manifestation of collective rhythm, participants simultaneously performed four physical exercises:

- forward bend;
- squat;
- forward swing of the right leg, then step together;
- lunge with the right leg.

Each movement was performed in a uniform tempo and rhythm over 2 counts, without pauses, and took no more than 5 seconds.

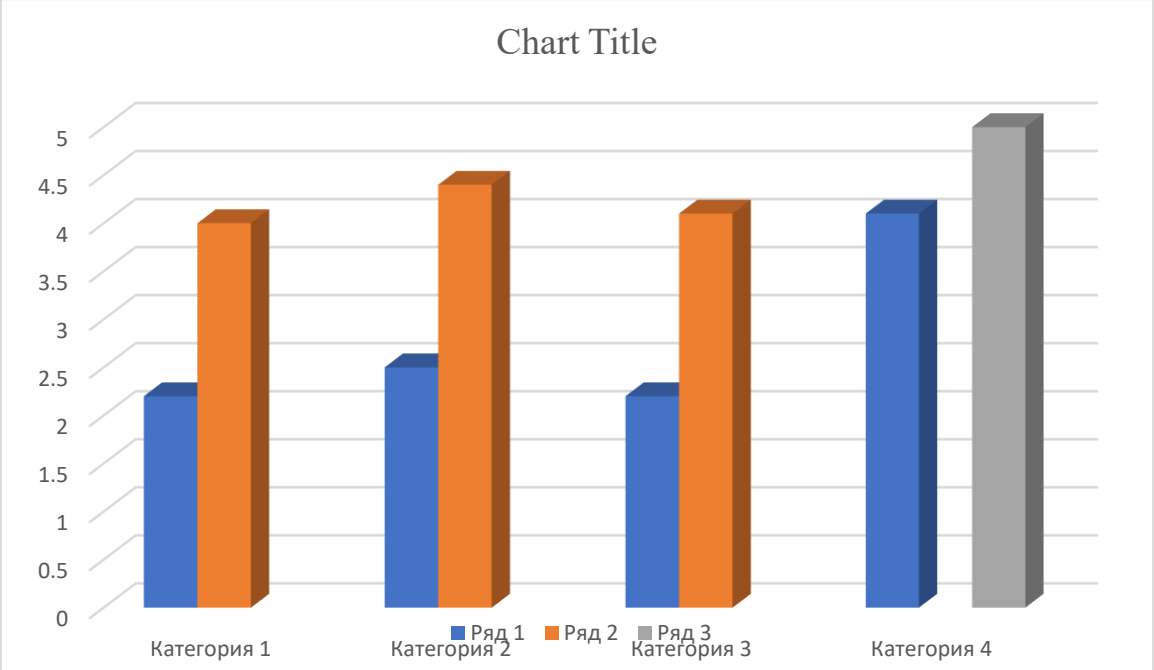
The baseline data in the experimental group (EG) and control group (CG) showed no significant differences, indicating approximately equal levels of physical fitness among all participants ($p > 0.05$).

The success of developing collective rhythm largely depends on the type of music which is used during training. Preference was given to melodies with a clearly expressed major-mode rhythm, with tempo changes in different sections from slow to fast, allowing movements to be performed with a wide range of motion.

By repeatedly listening to the musical accompaniment, the participants in the experimental group (EG) initially became familiar with the features of the musical piece, its dynamics, and the optimal distribution of strong and weak beats, mentally visualizing the character of the dance movements that best

Academicia Review-A Multidisciplinary Online Journal
ISSN (Online): 3070-6726
Website: https://academicia.org
Volume 2, Issue 6, June, 2026

matched the nature of the melody. Clapping was used to mark the beginning and end of a motor act, emphasize the start of a dance sequence, transitions from one exercise to another, determine moments for performing static (at least 2 s) and dynamic (1 s) pauses, and indicate the pattern of alternation of different exercises (swings, bends, squats, turns, jumps, and hops).



Dynamics of Physical Fitness Indicators and Proportionality of Motor Actions in Female Students Aged 18–20 in the Control and Experimental Groups:

1 – 500 m run; 2 –long jump (standing); 3 – shuttle run (change of direction running); 4 –high jump (standing); 5 – maintenance of vertical posture; 6 – proportionality of motor actions.

Considerable attention was given to refining the coordination of movements that constitute the structure of the motor act. For this purpose, the participants verbally indicated the onset and completion of the preparatory, main, and concluding phases of the motor action, as well as the development of primary and secondary efforts and movements with small, medium, and large amplitudes.

The participants were required to demonstrate maximum attention, concentration, and responsibility. To understand the structure of the motor action,

Academicia Review-A Multidisciplinary Online Journal
ISSN (Online): 3070-6726
Website: https://academicia.org
Volume 2, Issue 6, June, 2026

it was first performed under the coach's counting, while each participant mentally repeated the count.

References

1. Ашмарин Б.А. Теория и методика физического воспитания. – Москва: Просвещение, 1990.
2. Матвеев Л.П. Теория и методика физической культуры. – Москва: Физкультура и спорт, 2008.
3. Лисицкая Т.С. Аэробика: теория и методика. – Москва: Федерация аэробики России, 2002.
4. Курамшин Ю.Ф. Теория и методика физической культуры. – Москва: Советский спорт, 2010.
5. Крючек Е.С. Оздоровительная аэробика. – Москва: Академия, 2001.
6. Платонов В.Н. Система подготовки спортсменов в олимпийском спорте. – Киев: Олимпийская литература, 2004.
7. Холодов Ж.К., Кузнецов В.С. Теория и методика физического воспитания и спорта. – Москва: Академия, 2012.
8. Булгакова Н.Ж. Оздоровительные виды гимнастики. – Москва: Академия, 2005.
9. Сайкина Е.Г. Фитнес и аэробика: организация и методика занятий. – Санкт-Петербург, 2009.
10. Винер И.А. Ритмика и координация движений в гимнастике и аэробике. – Москва, 2011.