

**MENTAL ENLIGHTENMENT SCIENTIFIC –
METHODOLOGICAL JOURNAL****MENTAL ENLIGHTENMENT SCIENTIFIC –
METHODOLOGICAL JOURNAL**<http://mentaljournal-jspu.uz/index.php/mesmj/index>**THE CONTENT AND STRUCTURE OF DEVELOPING COORDINATION
ABILITIES IN PRIMARY SCHOOL STUDENTS****L.Z. Kholmurodov***Doctor of Pedagogical Sciences (DSc), Associate Professor**Uzbek State University of Physical Education and Sport*laziz.xolmurodov@mail.ru*Tashkent, Uzbekistan*

ABOUT ARTICLE

Key words: balance, physical development, content and essence of coordination abilities, special and unique coordination abilities, control exercises, physical qualities.

Abstract: The article examines the content and essence of the development of coordination skills in extracurricular physical education lessons for primary school students, as well as the results of pedagogical experiments using special physical exercises.

Received: 05.07.26**Accepted:** 06.07.26**Published:** 07.07.26

Introduction. In organizing physical education lessons for schoolchildren, insufficient attention is paid to developing the quality of agility and coordination movements. The reason is that, in this process, lessons are conducted according to the prescribed sections of the curriculum.

In the conditions of the scientific and technological revolution, it is very important to progressively develop such qualities as, for example, the ability to move quickly in space, the fine differentiation of muscles and the regulation of muscle tension, rapid responses to environmental signals, and the stability of the vestibular apparatus.

The terms “coordination,” “condition,” and “agility” are expressed through accuracy, a sense of rhythm, the ability to relax the muscles independently, and the ability to move quickly and easily under changing conditions.

These very abilities were also described by Professor L.P. Matveyev in his scientific research. In his view, in the era of the technological revolution, maximal strength increasingly provides universal capabilities, while inertial capabilities are being replaced by dynamic conditions and coordination dynamic richness. Today, new kinds of professions are already being demanded in sports practice and in the modern technology industry. Physical education and sport also rely on the data indicating that they determine a certain motor intelligence and the stability and lability of analyzer functions. It is precisely these requirements that set a clear upward trend [9].

Methodology. Numerous studies conducted over the past decade have shown that various types of motor coordination and coordination abilities occupy a very distinctive place in a person's sport, physical education, labor activity, military service, and life. For this reason, in place of the already existing definition of the concept of "agility," which has proved to be very vague and unclear, the term "coordination abilities" (CAs) has been introduced into theory and practice in accordance with their refinement. Researchers have set out in their scientific work the need for a system of such abilities and for a differentiated approach. The term "coordination abilities" was introduced in order to change the existing definition of the term "agility," which is regarded as very vague in theory and practice. We have begun to conduct research on the need for systems for this ability and for differentiating them in order to improve them [5].

The purpose of the research is to substantiate the classification and structure of the formation and development of coordination abilities in primary school students.

Research tasks:

- to substantiate the classification and structure of coordination abilities;
- to analyze the generally accepted development methods aimed at developing coordination abilities in primary school students;
- to develop a set of special physical exercises aimed at developing coordination abilities in primary school students.

Results and Discussion. Numerous studies conducted over the past decade have shown that various types of motor coordination and coordination abilities occupy a very distinctive place in a person's sport, physical education, labor activity, military service, and life. For this reason, in place of the already existing definition of the concept of "agility," which has proved to be very vague and unclear, the term "coordination abilities" (CAs) has been introduced into theory and practice in accordance with their refinement. Researchers have set out in their scientific work the need for a system of such abilities and for a differentiated approach. The term "coordination abilities" was introduced in order to change the existing definition of the

term “agility,” which is regarded as very vague in theory and practice. We have begun to conduct research on the need for systems for this ability and for differentiating them in order to improve them.

With respect to the problem we are studying, the methods of pedagogical observation and the study of their structure were directed at developing the balance-keeping function and coordination abilities in children aged 7–10, as well as at using means and methods for increasing the physical activity of young students.

Pedagogical observation made it possible to determine the students’ positive attitude toward introducing complexes of physical exercises into the training process and to assess their physical condition during the lesson. The pedagogical study was conducted in order to determine the effectiveness of a set of special exercises aimed at developing the coordination abilities of primary school students aged 7–10.

The pedagogical study was carried out during extracurricular physical education classes, in the gymnasium, and during outdoor training sessions. At the beginning of the study, a 25-minute session was conducted that included general developmental exercises and warm-up exercises. The participants were given the task of performing the control exercises with the highest level of preparation.

Authors’ opinions on what the term “coordination abilities” means have still not been fully settled. In order to substantiate the considerations stated above, we have developed the following classification of coordination abilities (see Figure 1).

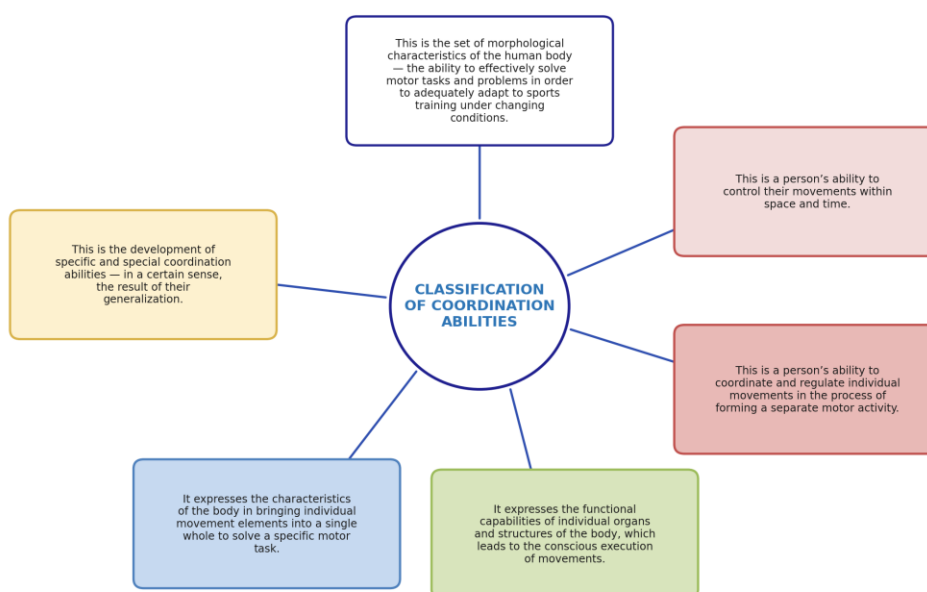


Figure 1. Classification and structure of coordination abilities

The literature we have studied and analyzed on this issue makes it possible to distinguish the following types of coordination abilities: 1) special; and 2) those expressed as specific (unique) CAs.

Special CAs. Special CAs are abilities that determine a person's readiness to rationally regulate and control movements of various origins and complex movements.

The following special CAs are distinguished:

- various cyclic (walking, running, crawling, cycling, mountain climbing, swimming) and acyclic movements;
- in fine technical movements of the body in space (acrobatic and gymnastic exercises);
- in movements of different parts of the body in space;
- in movements directed at actions associated with the displacement of objects in space (moving objects, winding a rope around a stick, lifting heavy objects);
- in throwing movements (ballistic), with a focus on distance and strength (hammer, discus, and grenade throwing, and shot put);
- in throwing movements, with a focus on accuracy (juggling, tennis, shooting or throwing various objects at a target);
- in goal-directed movements;
- in copying and imitation movements;
- in defensive and offensive movements in combat sports (fencing, boxing, types of wrestling);
- in technical-tactical and technical movements in defense and offense in many sports and active games (hockey, handball, football, volleyball, basketball, and others).

This systematization does not include other groups of CAs associated with a person's everyday and labor activities. This, in turn, does not allow for a full analysis of the details of movement when mastering and performing complex coordination movements. For this reason, the problem of developing coordination abilities still remains relevant.

Specific (unique) CAs. Specific CAs are as varied as the practice and the nature of a person's physical activity. The most important of these, as V.I. Lyakh emphasized, is the "basic" coordination ability.

As with other physical qualities, the balance-keeping function is also characterized by the uneven development of individual ontogenesis.

Based on the data presented above, the static balance-keeping ability of girls in grades 1–2 does not change significantly. In grades 4 and 5 it increases significantly and then

deteriorates over three consecutive years. The indicators of eighth-grade students are close to the balance-keeping indicators of second-grade students. During the secondary-school period, the static balance-keeping ability of girls is variable and increases significantly. A high level of its development is observed in ninth- and eleventh-grade students.

Coordination abilities are studied as motor adaptation, that is, as the ability to restructure movements under rapidly changing situations and under standard and unexpected conditions.

However, this view may be placed among those that have not been confirmed from the standpoint of the many facts that have emerged in practice and the research data obtained. The scientifically substantiated ability for rapid learning, in place since the 1920s, has in fact proved to be reliable. Thus, we may state that an individual can be more successful than others in learning some movements (for example, acrobatic or gymnastic ones), but in others (for example, in mastering technical-tactical, sport-game movements) may rank among the poorest performers.

Various physical exercises are used to develop coordination abilities in primary school students.

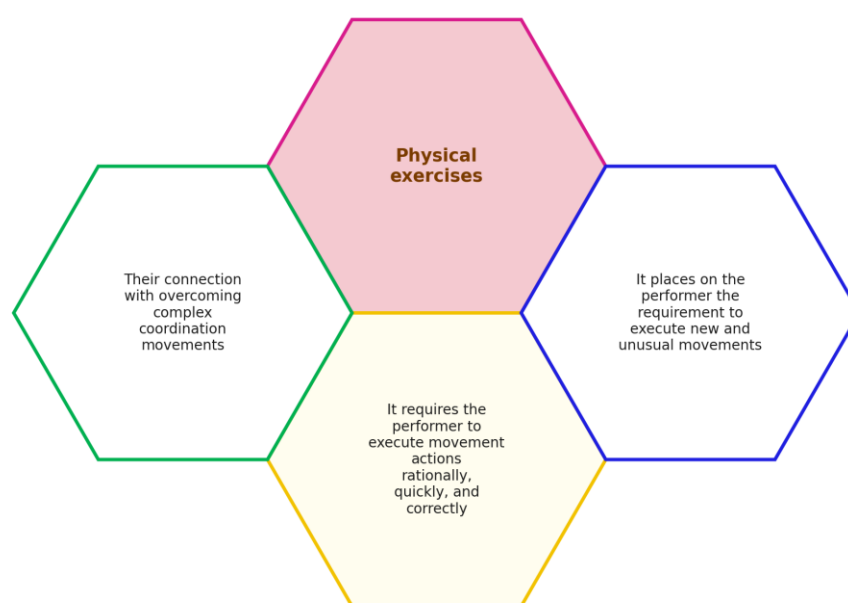


Figure 2. Classification of various physical exercises for primary school students

The general-preparatory coordination group of exercises is especially broad and diverse. Their use during the primary-school period is observed to proceed at a considerably higher level than at the middle- and upper-school ages.

In the form of refinement, they may be implemented as general- and special-preparatory coordination exercises and as elements of active and sport games (especially combat sports and

active and sport games), which to a certain extent is considered an effective means of developing CAs (see Table 1).

Table 1

Classification and forms of coordination exercises aimed at developing the general and special physical preparation of students aged 7–10

No.	General preparation	Special preparation
1	Enriching the content of life skills — this category is expressed through new variants of new or old movement actions.	Auxiliary exercises aimed at helping to develop and consolidate motor skills (movement forms) and movement technique.
2	Increasing motor activity — here, general developmental exercises with objects (balls, sticks, jump ropes, hoops, ribbons, wands) are used individually and in pairs. These exercises can be relatively simple and variable. It is a set of very complex exercises performed in various situations with the help of the body or its parts.	Developmental exercises aimed at developing special CAs. The division into formative and developmental exercises is carried out very arbitrarily.
3	General developmental elements of acrobatics and gymnastics; throwing, jumping, and running exercises; and active and sport games that place high demands on coordination movements.	Adaptation to movements in space, kinesthetic differentiation, rhythm, vestibular stability, balance maintenance, and others.
4	Focusing primary attention on individual psychophysiological functions that ensure the optimal regulation and control of movements (expressed through exercises for developing the sense of time and space and through the degree of muscle tension).	Exercises that develop and refine specialized perception (sense of water, ball, objects, ribbon, various special sports equipment, and others).

Note: It is recommended that the movements be performed in integral coordination.

Various methods are applied to develop CAs in primary-school-age children.

The method of strictly regulated exercise is based on motor activity. It can be classified on the basis of varying or standardizing the influences. The variable (variative) and the standard-repetitive exercise methods are distinguished in this way.

The variable (variative) exercise method — according to most practitioners and researchers — is the principal method for developing CAs. It can be expressed in two main ways.

Conclusion. According to our research, these methods and means make it possible to simultaneously develop the regulation of movement actions, balance maintenance, and coordination abilities in primary-school-age children. The set of special physical exercises we have developed, aimed at developing the coordination abilities of students aged 7–10, can be used by teachers and coaches in extracurricular physical education classes.

References:

1. Decree of the President of the Republic of Uzbekistan “On measures to radically improve the system of general secondary, secondary specialized, and vocational education.” No. PF-5313 of January 25, 2018. (in Uzbek)
2. Salomov R.S. Theory and Methodology of Physical Education. Part II. Tashkent, 2015. 268 p. (in Uzbek)
3. Kerimov F.A. Scientific Research in Sport. Textbook. Tashkent: Ilmiy Tekhnika Akhboroti – Press Publishing House, 2023. 380 p. (in Uzbek)
4. Lyakh V.I. Development of Coordination Abilities in Preschool Children. Moscow: Sport Publishing House, 2016. 96 p. (in Russian)
5. Xolmurodov L.Z. Developing the coordination skills of primary class students // Mental Enlightenment Scientific-Methodological Journal. 2022. No. 6. P. 54–60.
6. Xolmurodov L.Z. Effectiveness of the development of the function of keeping right balance in primary class students // Mental Enlightenment Scientific-Methodological Journal. 2023. No. 2. P. 215–220.
7. Xolmurodov L.Z. The effectiveness of developing the balance-keeping function of primary school students // Scientific Research in Sport. 2023. No. 3. P. 68–72. (in Uzbek)
8. Xolmurodov L.Z. Developing the coordination abilities of primary school students // Scientific Research in Sport. 2023. No. 4. P. 3–7. (in Uzbek)
9. Matveyev L.P. General Theory of Sport and Its Applied Aspects [Text]: a study guide for students of pedagogical institutes and pupils of pedagogical colleges / L.P. Matveyev. Moscow: Sovetsky Sport, 2010. 340 p. (in Russian).