

# The importance of motion games in the psychomotor development of pre-schoolers during the physical education class

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**Abstract.** The class of physical education is of the essence for the physical, motor and social development of children. Psychomotricity, motor skills and motor qualities can be developed with the methods applied in the physical education class. In the case of preschool age, a primary objective of the physical education class is the development of psychomotricity. This is the reason why the present undertaking targets the development of several psychomotricity components through motion games during the physical education class. During a semester, we applied a syllabus based on the method of motion games. The subjects in the research were assessed with the help of Ozeretski - Guillmain prior and after testing. After the application of the proposed syllabus, an improvement in the test indices has been observed, a significant percentage of subjects advancing towards slight psychomotor inability.

**Keywords:** Motion games; physical education; preschool

## 1 Introduction

The study of motor behaviour in the physical education and sport activities is very important because the motor aspect is predominant in the body activities. It is, therefore, natural that psychomotor skills have a significant role in the instructional-educational process. Thus, one of the major specific objectives of physical education is represented by psychomotor education.

It is well-known that certain behaviours of the human subject depend, both structurally and as manifestation, on nature and on the characteristics of the stimuli which trigger them, but also on the particularities of the respective person. It is, then, important that the entire effect of the instructional-educational process depend on the dynamics of the subject's personality, in whose structure, the psychomotor skills play an important role [1, 3].

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While in the past, the studies would tackle psychomotricity from the perspective of motor development and its relation with intelligence, the more recent studies consider the motor structures and their relation with the body schema, ideomotricity, laterality and the spatial-temporal structure, as well as the means of learning and adapting of the individual in society. The study of psychomotricity plays an essential role in the organisation of the instructional-educational process. It is not restricted to motor activity, but it also involves the presence of the manifestations of perceptive and intellectual functions. These psychomotor habits of each individual evolve according to their innate skills, to their degree of physical and intellectual development and to the educational environments in which they have been educated during childhood [2, 5, 9].

The aim of this paper is drafting and applying an educational programme for a few selected psychomotor components – spatial orientation, laterality and acknowledgement of the body schema – for small school-age children, during the physical education class, based on the game method (motion games). In what concerns the pupils' age, it will constitute a positive factor in accomplishing the proposed objective, namely in educating the psychomotor components. We have set out from the premise that this would favour all the aspects related to motricity in primary school. The education of psychomotricity in primary school is extremely important because of the age of the pupils. It is a propitious time in the life of an individual, the optimal stage to posit the matter of psychomotor education at the highest parameters.

## **2 Research methods**

### **2.1 Procedure**

The research focused on the educational valences of the motion games, aiming at the education of psychomotor skills. Special attention was granted to motion games, as they provide favourable conditions for the simultaneous development of motor qualities and basic or specific motor skills and of their relation with the psychic processes through its contents, manifestations and effects.

Due to the multiple variants which can be encountered in a motion game and to its instructional-educational forms, it has been included among the learning contents of any lesson as a means for physical education. It is well-known that some teachers of physical education use this method intensively, while others prefer attaining their objectives by using simpler, less thought-of methods which require less preparation, or use the motion game erroneously. We infer from this that the motion game is not granted the importance it deserves, and we aim to underline its educational value and to identify the most effective motion games in view of educating the selected psychomotor components for the small-age school student.

In order to obtain some optimistic results with regard to the use of this method, a long period, covering more curricular cycles, is not necessary, as the effects of this method are almost instant, becoming apparent in less than a semester. The students are receptive; they take an active part in any activity of this type, they think, they interact and relate with their opponents, partners, classmates, creating and looking for solutions.

### **2.2 Subjects**

The pilot-test was carried out during the school year 2016-2017, on a sample of 32 subjects, 11 boys and 20 girls, four-grade students in a rural school in Galati County. The mean age was of 10.4 years.

## 2.3 Methods

Psychomotricity was tested using the Ozeretski-Guillmain test, an adaptation from P. Vayer and L. Picq [7]. The test is intended to identify the main motor components, with its four aspects: speed, coordination, strength, resistance, on the following coordinates: hands dynamic coordination, general dynamic coordination, balance, rapidity, spatial orientation. The results obtained reveal the students' coefficient of psychomotor delay and their degree of psychomotor inability.

The students in the research were evaluated at the beginning of the research; having applied the test, we clarified the aspects where intervention was required and established the means (motion games) of operation during research. The syllabus was applied during the second semester (16 weeks x 2 hours = 32 hours) during the physical education classes, with objectives pertaining to psychomotricity, by implementing a motion games programme, in view of improving the education level of each student's psychomotricity.

## 3 Results and discussions

Psychomotricity is one of the basic components of the school curriculum for primary education; however, its specific means and objectives towards its development are not clearly specified. Because of the limited number of physical education classes, some teachers choose to expedite the lessons containing psychomotricity objectives. In Romania, 100 minutes of physical education are allocated weekly for the primary school education. However, in order to develop the psychomotor qualities and the motor skills provided by the curriculum, more classes of physical education and a superior endowment of the schools with sports materials seem extremely necessary.

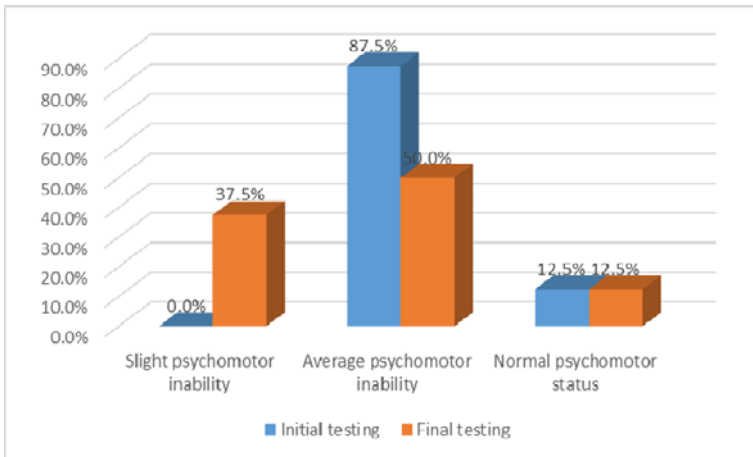
Our research is intended to underline the fact that the psychomotor components can also be developed in rural schools, even with means which do not require a large number of sport materials.

Because of the small number of students, their differences in age in a class (which is made of up to 20 pupils), and the parents' mentality, these children are particularly difficult to work with. The schools in the rural environment are disadvantaged because of school drop-out rate and the parents' mentality.

In view of outlining the degree of psychomotor development, we used the Ozeretski-Guillmain test, which points to the essential behaviours of motor life, under its four aspects: speed, coordination, strength and resistance, with its specific coordinates: hands dynamic coordination, general dynamic coordination, balance, rapidity, spatial orientation

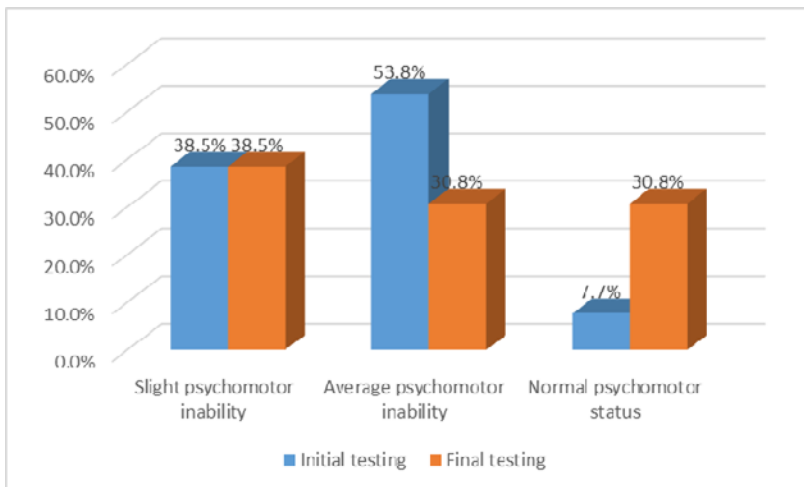
After applying the proposed syllabus with motion games for the improvement of psychomotor components, a significant percentage of students improved their psychomotor qualities, advancing from one status to the next. Out of the 21 pupils, 38% were 10 years old, and 62% were 11 years old.

Figure 1 shows that, for the research subjects aged 10, the indices of the Ozeretski-Guillmain test point to the decrease of psychomotor inability by 37.5%, a value equally divided in the case of slight psychomotor retardation. The normal psychomotor status remained constant after the final testing. These results are owed to the proposed programme, which aimed at developing the psychomotor components through motion games. Motion games proved the ability to improve the psychomotor components, provided that they are conducted in accordance with the subjects' age and in view of acquiring the proposed objective.



**Fig. 1.** Comparative results of the 10 years old students in the Ozeretski-Guillmain test

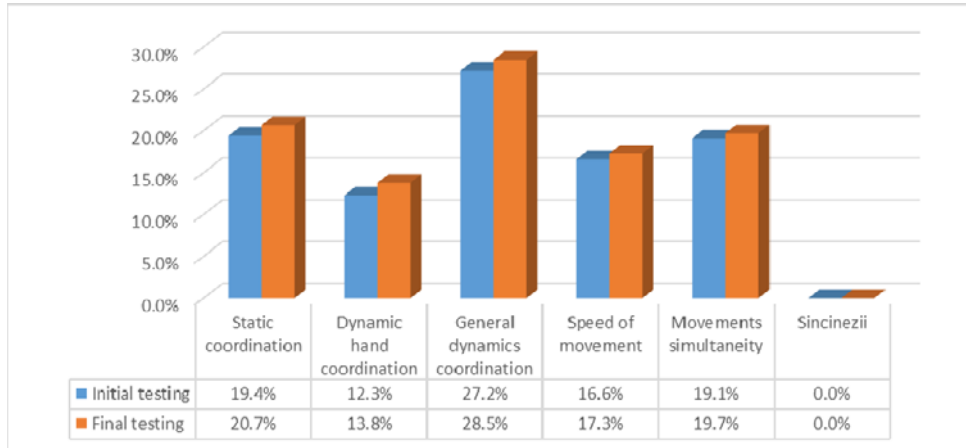
In the case of the 11 years old students, it can be observed that slight motor retardation has remained constant, at 38%, the average psychomotor inability decreased by 23.07%, while 23.08% of the students have reached the normal psychomotor stage at the end of the study. The results of these students were better than the ones obtained by the 10 years old students due to their age and to the skills already formed at this age. Some authors consider that 11 years is the age when the development of psychomotor components reaches its final stage. These improvements of the 11 years old students are owed to the motion games focused on the development of psychomotor components, applied during the physical education class.



**Fig. 2.** Comparative results of the 11 years old students in the Ozeretski-Guillmain test

The test indicators have emphasised various motor manifestations of the research subjects. The results of the indices of the Ozeretski-Guillmain test are presented in Figure 3, which depicts the differences obtained by the students in the initial and final testing. The percentage differences range between 0.06% for movements simultaneity, the smallest progress, the 1.3% for general dynamic coordination, the best progress. These small differences prove that, at this age, not all subjects have good static or dynamic coordination or a good hand or leg adroitness. These results are the consequence of the lack of an

imposed curriculum providing a number of lessons containing objectives from the domain of psychomotricity.



**Fig. 3.** Comparative results of the indices of the Ozeretski-Guillmain test obtained by the research subjects

The programme of motion games we elaborated is based on the Zimmer [8] method described as concerning children's psychomotor development. The motion games applied were fun and ensured the children's enthusiasm. The activities promotes group games and, therefore, social relations between children. The games had simple rules and group tasks, a condition which requires cooperation. The rules were clear and easy to understand, so that they could be interiorised and applied by all children. Some games also contributed in the development of creativity, as they were based on problem-solving, the children being sometimes assisted by their teachers in solving the problem.

A real contribution to the understanding of psychomotricity is to be found in the studies related to psychomotor education and re-education. In the case of psychomotor disorders, Guillmain recommends a complex therapy which points to three aspects: the re-education of the tonic activity through attitude and balance exercises; the re-education of the relationship activities through exercises of synkinesis and development of motor coordination; and the re-education of the intellectual control over the affective functions.

Other researchers consider that children learn about the world and about themselves through physical activity. Through motions, children acquire experience, skills and knowledge in many fields. The contact they have with other children often starts with body language and body activities. This is important for the development of social component. The active use of the environment in open space offers many opportunities [6].

Some authors, such is the case of Camargos and Maciel [4], have reached the conclusion that motion games should be understood as practices which promote the learning and development of various aspects of the human being, from motor, psychological, social and affective points of view. During the physical education classes, the teacher must give up the repetition of movements and the mechanics of the activities which do not develop the body and the brain. The game is a direct channel which the children use to express their wishes and feelings, a very powerful instrument during the initial period, when children enter in a relationship with society [4].

The main components of psychomotricity (the body schema, laterality, ideomotricity, motor intelligence) deem possible:

- pragmatic adaptation (learning the professional, manual or intellectual techniques);
- social adaptation (means of interpersonal communication);
- aesthetic adaptation (body expression techniques); and,

- educational adaptation (physical education, sport training, etc.).

Not only do the motion games and physical activity develop the children from a motor perspective, but also in what concerns their cognitive, social, affective and creative skills and abilities.

## 4 Conclusions

Psychomotricity, as a primary objective of the physical education lesson, may be developed through various means for pre-schoolers. The means with the highest applicability in psychomotor development is the motion game, because:

- it creates positive emotional states;
- it contributes to the harmonious development of the body and to maintaining an optimal state of health;
- it contributes to the development of the motor qualities, to the formation of basic motor skills, applicative skills and skills specific to some sport branches;
- it stimulates the cooperation with the game partners, it harmonizes the personal interests, motives, actions and efforts with the ones of the group;
- it facilitates the integration into the collective and responsibility;
- it contributes to the education of moral and will qualities;
- it contributes to the education of attentiveness, perception and motor reaction;
- it helps in the development of thinking, initiative, creativity, the decisional and anticipation ability.

Thus, the game has many roles in development, and daily activity should be carried out accordingly. In order to attain maximum effectiveness, it necessary that the games be judiciously selected, organised, carried out and led. The teachers should know their students, their age and gender particularities, their general physical preparation level, the working material (spaces, fields, apparatuses, materials, etc.). All these determine, to a great extent, the quality, the contents and the level of the physical education activities.

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