Bulletin of the *Transilvania* University of Braşov
Series IX: Sciences of Human Kinetics • Vol. 13(62) No. 2 – 2020
https://doi.org/10.31926/but.shk.2020.13.62.2.14

THE IMPACT OF MOVEMENT GAMES IN THE PROCESS OF TEACHING MINIHANDBALL AT PRIMARY LEVEL

Ioana Maria CURIŢIANU[1]

Abstract: *The purpose of the research consists in enriching the baggage of qualities and motor skills, specific to the pupils in the primary cycle (fourth grade), by differentiating the technical and tactical content of the mini-handball game, applying movement games and stage-races with content of elements and procedures of the mini-handball game. The initial testing was carried out using physical, technical and tactical tests. Subsequently, after the initial testing we used a program of movement games for a period of 6 months, the content of selected means was applied to the experimental group, within the physical education lessons. The data obtained were statistically processed in order to rank them, to highlight the progress made by the pupils and for a more detailed analysis of the events*.

Key words: *primary education, mini-handball, movement games.*

1. Introduction

Handball is a sports game, being part of the category of games invented to meet the human demand for search, change, novelty. By its quality as a sports game, it occupies a well-deserved place in the sub-domain of sports education, implicitly of the civilization and sports culture [1].

This collective game is characterized by a complexity of movements executed in changing conditions of force and speed, determined by the collaboration between teammates and the direct fight with the opponents. The modern game of handball involves special somatic biotypes which act at an alert pace in which the speed and the force are combined from the motor point of view with the resistance and the skill. In order to be able to cope with such biological requirements, the handball game demands from the practitioners special physical and mental qualities [5].

The handball game is the most accessible sports game for the young pupils, this quality due to the fact that in its technical structure the natural movements in the category of basic motor skills (running, jumping and throwing) are

[1] Department of Physical Education and Special Motility, *Transilvania* University of Braşov.

found, in fact which greatly shortens the initiation-learning phase thus creating the possibility of early practice of the global game with adapted rules [9].

It is recommended that handball be introduced as the first sports game for the following reasons: higher accessibility compared to the other sports games, possibility of practicing in minimal material conditions, extension of the training process and during the cold periods, subsequent transfer of many categories of contents to other sports games [9].

The human organism is a hyper complex, integrative system, which brings together devices and systems, with distinct functions, that express as a result the unity between the somatic and the mental spheres and implicitly the adaptation to external conditions [3].

The passage of children from one age to another can be done only after growth and development processes, which are subject to the laws of growth, for the first aspect, and the second phase of development. Growth refers to the quantitative aspect, while development captures the qualitative sequence. The two processes cannot be separated they are in an interconditioning process. Situated between childhood itself and adulthood, adolescence makes the transition from childhood to maturity and integration into adult society. It is generally considered to start around the age of 10-11 and end at the age of 20. This period is characterized by a real leap in the physical and mental development of the adolescent [2].

Child growth and development does not take place at a uniform pace, but with periods of slow growth with varying durations in relation to age, living conditions and individual, hereditary particularities [3].

An important stage in the development of representations is the transition from their involuntary appearance to the ability to evoke representations voluntarily. Then, the development of representation capacities goes in the direction of increasing the generalizing element. This development can be accomplished only in the process of an appropriate activity, in so far as the child develops the ability to voluntarily evoke and direct his representations, depending on the task given to him by the verbal training or the purpose that he has set through the inner language. Thinking is a psychic process of generalized and mediated reflection of the objective reality, of the essential properties and relationships of objects and phenomena [4].

The specificity of the thinking of the young school-age child manifests itself through an essential property, namely that of being concrete-intuitive. The child thinks more by operating with the concrete crowds, despite the fact that the logical principles require a progressive concrete basic detachment (intuition is denied) and the operations require an internalization that is a mental functioning [7].

Logical thinking in small classes cannot be dispensed with intuition, concrete operations with lots of objects. Before applying to sentences, verbal statements, notional logic are organized into the plan of objective actions and concrete operations. That is why the process of teaching-learning mathematics in classes' I-IV must first mean carrying out concrete actions, that is, operations with objects that are structured and internalized, progressively becoming logical, abstract operations [7].

The good conduct of the physical education and sports lesson depends on the observance of some general or fundamental didactic requirements, which direct and make efficient the educational instructional process. Depending on the content of the program, the topics concern the instructive-educational components and represent knowledge, skills, motor skills (basic, utilitarian-applicative or specific to some branches of sports) and psychomotor skills [8].

In order for thinking to become productive and creative it is necessary to be properly educated. The true education is the one that obtains the adhesion and collaboration of the subject, which causes a creative and fruitful activity in which the pupil is the starting point [6].

2. Research Hypothesis

Started from the assumption that the application of an appropriate methodology according to the possibilities of reproduction of the motor and technical models in the physical education lessons, determines the improvement of performances, skills and the pre-sport skills, as well as the development of the basic motor qualities.

3. Material and Methods

To carry out the proposed experiment, we chose a sample of 20 children (10 girls, 10 boys). The group held physical education classes 2 hours/week.

The duration of one hour of physical education, being 45 min. The lessons were held in the school yard, except for the winter, when one could work in the field of experiment under optimal conditions, because the school has a gymnasium.

At the beginning of the research we conducted test regarding the general motility, technical and tactical levels of the minihandball game. As a level of physical development and training it is a heterogeneous group, with an appropriate level of motility, morpho-functional and somatic development.

The experiment consisted of training the children of the primary class (the fourth class) through the specific action systems and movement games with content from the minihandball game - the fundamental position of attack and defense, movement on the field for attack and defense, catching and passing the ball, dribble and removing the ball from dribble, throwing at the gate and blocking the throws at the gate.

The content of the experiment included technical procedures inserted in movement games and stage-races.

Final tests showed the level of education /development of the motor qualities and the degree of mastery of some technical elements and tactical actions specific to the handball game.

Initially, a series of control tests were applied regarding their motor skills and their technical-tactical knowledge. Subsequently, a program containing training means selected in accordance with the age particularities of the subjects and the objectives targeted by applying them was applied to the selected sample (class IV). At the end of the experiment, the final test was performed by applying the same samples, so that after analyzing the results, we can draw the conclusions for the verification of the experimental hypothesis.

The training tools used were selected from the literature with minor modifications and adaptations in order to amplify the positive influences on the

development of qualities and motor skills concerned. These were systematized, adapted and staggered taking into account both the provisions of the National Assessment System and the material conditions existing in the school.

Considering that the main means of exercising during the physical education hours was the movement game, we used specific work groups for them, namely: individually, in pairs, in groups, in teams.

In order for the experiment to be conducted under optimal conditions, all materials and installations have been checked and tested beforehand, ensuring that accidents will be avoided during their use.

In order to achieve the above mentioned ones, we applied the statistical calculation formulas for the four samples under evaluation, namely:

Motor qualities:

- strength - throwing the ball; coordination - dribbling between cones.

Technical and tactical structure:

- dribbling - pass to side - repression - dribbling and throwing at the gate.

Technical and tactical content:

- application of technical procedures and game actions in attack and defense in bilateral game.

The performance descriptors based on which the evaluations were performed on the specific tests were as follows:

- For the evaluation of the process of passing the ball on the move, with one hand above the shoulder:
- control over the ball; twisting the trunk towards the throwing arm, passing the weight on the front leg when passing the ball; flexion of the trunk on the pelvis in the final part of the throw; the accuracy of sending the ball to the partner.

In order to evaluate dribbling the following were assessed:

- pushing the ball on the ground at an angle corresponding to the speed of movement;
- the dribbling plan; adequate control of the ball in relation to the direction and speed of movement;
- dribbling with the gaze oriented towards the playing field;
- the rational use and the skillful hand;
- the time of dribbling printer milestones.

For the evaluation of the bilateral game were followed:

- the collaboration of teammates in the attack phase through side passes and also the accuracy of their execution;
- respecting the positions established within the game system;
- applying previously learned actions;
- finalizing the throws at the gate through the proper procedures and only in the appropriate moments;
- withdrawal in defense when losing possession of the ball;
- making throws at the gate.

4. Results and Discussions

Further, in table no. 1 are presented the results recorded by the children of the fourth class, following the performance of motility, technical and tactical tests, both in the case of the initial and final testing.

From the calculated data regarding the distance the ball was thrown it can be observed that the motor parameters have improved significantly for all the 20 children of the fourth class, after using the training program consisting of dynamic games, stage-races and application paths with technical and tactical content, specific to the minihandball game.

Table 1

The statistical results obtained by the research subjects at the initial and final tests

Tests performed (grades obtained), N=20, √n=4,472 *(I.E./F.E.)*				
	Throwing the ball at distance	*Technical and tactical structure*	*Bilateral game*	*Dribble between cones*
Mean	7,45/8,85	7,2/9,25	7,2/9,45	7,25/8,75
Standard deviation	0,686/0,875	0,695/0,786	1,105/0,604	1,019/0,91
Variation Coefficient	9,2/9,88	9,65/8,49	15,34/6,39	14,05/10,4
t- Test	t = 5,691	t = 8,836	t = 8,007	t = 4,975
p-value	$< 0.05^{*}$	$< 0.05^{*}$	$< 0.05^{*}$	$< 0.05^{*}$

I.E. – Initial Evaluation, F.E. – Final Evaluation

In the initial testing the average of the scores obtained by the subjects under research in throwing the ball at distance test was 7.45, with a standard deviation of 0.686, and the value of the average at the final test was 8.85 with a standard deviation of 0.875.

In the initial testing, the average value of the grades obtained by the subjects at the technical and tactical structure is 7.2, with a standard deviation of 0.695, and at the final test, the average of the marks is 9, 25, with the standard deviation of 0.786. The coefficient of variability indicates for the initial testing the value of 9.65% and for the final one of 8.49%, which shows that in the final testing the degree of homogeneity increased.

At the bilateral game we can see that at the initial testing the children obtained an average of 7.2 and at the final testing an average of 9.45. There is a significant increase in homogeneity, where at the final testing the subjects obtained a value of 6.39% compared to the value of 15.34% recorded at the initial testing.

The calculated Student test indicates the value of 8.007, which shows that there are significant differences between the two testing moments for a significance threshold of p <0.05.

Regarding dribbling between cones we observe significant changes in the values recorded by the experimental group, the value of t (t = 4.975) falls within a significance threshold p <0.05, which causes us to affirm the there are significant differences between the two testing moments the research subjects significantly improved their skills.

Following the analysis of the results obtained by the research subjects in the case of the 4 tests it was observed that the homogeneity of the group increased significantly between the two moments of the test:

- for the sample throw of the handball ball at a distance, the values were close to 9.2 respectively 9.88, no changes of the homogeneity of the group of subjects are observed;
- regarding the technical and tactical structure and the dribbling test between cones the values decreased from 9.65 and 15.34 at the initial testing to 8.49 respectively 6.39 at the final testing;
- in the case of the bilateral game, a decrease in the value of the coefficient of variability is observed, reaching 10.4 in the final test from the value of 14.05 initially obtained.
- at the dribbling test between cones we have a value of 14.05 initially and finally the value of 10.4.

After performing the statistical-mathematical calculations and analyzing the performances obtained by the research subjects in the case of the 4 tests

it was observed that the average of the values recorded in the two moments of the test increased.

5. Conclusions

The dynamic games were used in the development part of the motor qualities of the lesson, and the stage-races and actuation systems with technical-tactical content in the mini-handball game at the moment of consolidating the pre-sport motor skills.

The race-stages included a series of elements arranged in a certain sequence (running, jumping, rolling, balancing, lifting and transporting weights, climbing) following the development of the force, the speed of reaction, coordination and resistance.

Increased climate of trust, cooperation in group activities, team spirit, collaboration between teammates, desire to win, discipline in the game, honesty and fairness, desire to show who is better within the rules and fair-play. This was observed after calculating the coefficient of variability.

The teaching / learning process aims to achieve the objectives necessary to reach the educational ideal drawn by the demands of society at a given moment of its evolution, regarding the formation and education of the human personality from all points of view.

The objectives proposed by the program of study of the minihandball discipline at the primary cycle are the accumulation of knowledge such as: knowledge of one's body, group relations, communication, enriching the motor abilities with specific skills; improving the ability of spatial-temporal orientation; formation of basic sporting skills in sports mini-games.

The approach of the training content in the handball game through the movement game with specific content has led to an easier learning of the elementary - sports skills. In choosing the movement games applied in the experiment, we focused both on those with running content and especially on the formation of ball handling skills, in collaboration with the team partners in order to overcome the competition opponents.

References

1. Balint, E.: *Instruirea în jocul de handbal. Conținut Tehnic (Learning handball. Technical content)*. Brașov. Editura Universității Transilvania din Brașov, 2004, p. 5.
2. Bonchiş, E., Secui, M.: *Psihologia vârstelor (Psychology of ages)*. Oradea. Editura Universității din Oradea, 2004, p. 279.
3. Bota, C.: *Ergofiziologie (Ergo physiology)*. București. Editura Globus, 2000, p. 6-7.
4. Druţu, I., Fodor, E.: *Psihologie. Manual pentru liceele pedagogice (Psychology. Book for pedagogical high schools)*. București. Editura Didactică şi Pedagogică, 1989, p. 51.
5. Hantău, C.: *Handbal (Handball)*. București. Editura Alphina, 2000, p.76.
6. Mahler, F.: *Educație şi învățământ în focarul sociologiei (Education and teaching in the focus of sociology)* (vol. Sociologia educației şi învățământului). București. E.D.P., 1977, p.100.
7. Neacşu, I.: *Metodica predării matematicii la clasele I-IV (Methodology of teaching mathematics in grades I-IV)*. București. Editura Didactică şi Pedagogică, 1988, p. 23 - 24.
8. Rață, G., Rață, G.: *Educația fizică și metodica predării ei (Methodology of teaching physical education)*. Bacău. Editura PIM, 2008, p. 44.
9. Scarlat, E., Scarlat, B.: *Educație Fizică și Sport (Physical education and sport)*. București. Editura Didactică și Pedagogică, 2002, p. 273.