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**NEW PERSPECTIVES TO DEVELOP PSYCHOMOTOR
CAPACITY FOR ROMANIAN CHILDRENS FROM PRIMARY
SCHOOL**

Florin Cojanu (a)*, Paul Visan (b)

* Corresponding author

(a) University of Pitesti, Targu din Vale Street, Pitesti, Romania, coj_florin@yahoo.com
(b) University of Pitesti, Targu din Vale Street, Pitesti, Romania, visanpaulefs@yahoo.com

Abstract

Physical education, as a component of general education, contributes to the development and **improvement of the child in terms of motor skills**; stimulating the intellectual activity and certain affective processes; developing certain group relations; **activation of certain psychical processes**; developing some skills and qualities in the work process; refining the body organs, functions, apparatuses; refining certain particular notes which appear in the activity of certain organs, apparatuses, processes, as an effect of practising physical exercise; sense of the ball, sense of rhythm, of tackling, peripheral vision, tactical thinking, motor memory, kinesthetic sensations, etc.

The purpose is to design the physical education's contents through psychomotor capacity's structure, which would impact positively the two components, general motor skills and psychomotricity by using a complex system of action using specific means and materials within the physical education lesson, but also the identification of new strategies of acting in an optimum manner in accordance with the current level of physical and psychical development of pupils from elementary school.

Physical education, as part of general education, pursues to achieve certain objectives, derived from the educational ideal, formulated at some point by society for which the subjects taking part in this kind of activity are being trained.

Among the general objectives that physical education proposes to achieve is also the one concerning the harmonious development of human personality by influencing both in terms of prophylaxis (prevention of negative outcomes), and remedial (remedying the negative traits which can appear at some point).

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Keywords: Elementary school; psychomotor capacity; strategy.

1. Introduction

Psychomotricity is a complex function that integrates and combined motor and mental elements that determine individual behavior regulation, including the participation of the different processes and mental functions, ensuring proper execution of documents in response to different situations stimulus. (Ardelean, 2006)

Drive ability - the functional Psychomotricity substructure - is the name of global muscle reactions by which the movement of the body or of its various components. But it was found that delays in development or different functional disturbances of movement / coordination body and its components aims quality movement required by a particular task or stimulus situation. (Colibaba, 1996, 2007)

This quality, more or less disturbed, movements and especially the gestures is determined by the way they are perceived and interpreted information, and the quality of response - which is influenced not only by motric factors but factors cognitive, affective, motivational, volitional, etc. So it is a more complex act that conjugated with mental motor skills in carrying out the action, and this act is called psychomotor. (Mihailescu & Mihailescu, 2006)

The new concept of education through movement *reducării* psychomotor and covers the entire personality of the child, as the association seeks permanent action and knowledge. Thus, according to (Schneider, 2004) and (Tourette & Guidetti, 1998), psychomotor education or psycho-neuro-muscular must address both the muscles and the nervous system and intelligence, not to become a dressage. Achieving the objectives of psychomotor education to a 'progressive integration of acquisitions which will then become the object of knowledge and reflection for the child ".

2. The Research Report's Purpose Gives Rise to The Following Practical Objectives:

1. Choice of the didactic environment to apply the practical preliminary experimental part, selection of samples, presentation of the thematic units proposed and designed by us, identification of the level of general motor skills parameters, but first, the most important parameters appropriate to psychomotricity's components, putting into practice the thematic units on a pre-set period of time on the experimental sample;

2. Identification and presentation under any type of example of thematic units of learning by implementing psychomotor means with a predominant percentage, comprising noticeable and measurable operational objectives;

3. Identification of tests specific to psychomotricity which would correspond first to the essential parameters of psychomotricity's components which can be optimized formatively and cumulatively in the process specific to the physical education and sports hours in elementary school;

4. Storage of data issued from applying initial and final tests within the preliminary experimental process, both within the experimental sample, but also in the control sample, introduction to the electronic database, analysis and interpretation from a statistical point of view;

5. Setting out new directions to act based upon the conclusions drawn from the preliminary experimental process, which will lead to designing new strategies to act within the current didactic process

in the physical education and sports hour in elementary school, that would act with a quality impact on the optimization of the psychomotor capacity of pupils from elementary school, 3rd and 4th grades.

3. Hypotheses of the Experimental Research:

1. We think that if we design and make the physical education's contents for elementary school from the complex perspective of psychomotor capacity, we will then be able to determine the enhancement of the parameters to act on the appropriate readiness, both of the motor, and the psychomotor side.

2. From the perspective of the strategies to act on the optimization of the psychomotor capacity, we think we will be able to improve the quality process of development of the two sets of parameters, motor and psychomotor, only if we will create thematic systems of acting with a predominant content of psychomotor means adapted to the process and provided by operational objectives measurable and noticeable (quality of the didactic process).

4. Research Methods

- Study of the specialized literature;
- Observation method;
- Questionnaire method;
- Measurements method – examinations and assessment tests used to identify values of the general motor skills indicators and the level of psychomotricity's parameters;
- Statistical- mathematical and graphical representation methods.

Testing the psychomotricity of pupils in elementary school: (Dragnea & Bota, 1999)

- Test no. 1. – Ability to focus (Bourdon test);
- Test no. 2. – Visual capacity (Lalume test);
- Test no. 3. – General coordination (Matorin test);
- Test no. 4. – Vestibular balance (Romberg test).

5. Stages of the Experimental Tests Carry Out and Programming the Application of Thematic Units Having a Predominant Percentage Content of Psychomotor Action Systems

1st stage: Initial testing of the two samples – experimental and control- took place during the period October 22nd -October 26th, 2015; this stage constituted the initial testing both for the preliminary experiment, and for the experiment itself. Over the following period it was begun the systematized application of thematic units of learning which contain action systems specific to general motor skills cumulated and persistent as percentage by means specific to psychomotricity. We think that these two sides present in the specific means of acting, both of general motor skills, and psychomotricity will contribute to the improvement of psychomotor capacity of the pupils from elementary schools, 3rd and 4th grades. We are going to put this statement into practice in order to be able to confirm it.

2nd stage: Final testing within the preliminary experiment but the intermediate stage 1 within the basic practical experimental process; this stage took place during the period December 17th -December 22nd, 2015. This period represents the first registration of data gathered from the tests on the two samples – experimental and control-tests which aimed both at general motor behavior, and psychomotor behavior of pupils in the research. The results will provide information relating to the impact from using the thematic units of learning that we proposed and applied. Thus, we think that we will be able to identify a gateway to the complexity of the psychomotor capacity parameters specific to the behavior of pupils in elementary school.

3rd stage: Intermediate testing 2 within the basic practical experiment, which took place during the period March 18- March 22, 2016, testing which gave the most consistent data by interpretation relating to the improvement of the psychomotor capacity parameters of pupils in the elementary school, 3rd and 4th grades.

4th stage: Final testing, which concludes the experimental practical process that took place during the period June 17th -June 21st, 2016; the results will point to the impact of the strategy to apply the thematic units of learning that we made, with a content of systems of action by psychomotor means, but also general motor means. By using the two sides comprised by the strategy of action following application of the thematic units of learning, namely general motor and psychomotor, the predominance being of the latter, we think that we will act specifically on the most important parameters of psychomotor capacity.

6. Evaluation Design Drawn-Up With a View to Determine the Level of Psychomotor Capacity Parameters in the Pupils Under Research

We decided to carry out the process of applying tests and examinations specific to general motor skills on four stages: initial, intermediate 1, intermediate 2 and final, and the tests and examinations specifically appropriate to the psychomotricity components be applied for each component separately, but in four stages as well: initial, intermediate 1, intermediate 2 and final; in the preliminary experiment we decided to conduct only 4 tests to identify psychomotor components which correspond to the most important of them.

The diverse range of thematic units of learning that we designed considered the essential modalities of learning which should express the needs of all pupils, allowing them to develop their entire potential from psychomotor point of view, implicitly to correspond to a strategy to optimize the development of the psychomotor capacity of pupils in elementary school. Starting from these conclusions drawn from the specialized literature's analysis and following the carry out of a questionnaire on the specialty teaching staff, we have selected in our scientific research matters which can point out to the structure and content of the training level of pupils in the 3rd and 4th grades, as well as the input these activities make on the psychomotor capacity's development exhibited at this age.

The process of the strategy to act so as to accomplish and apply the thematic units consisted of creating systems to act with a predominant content of psychomotor mean specifically adapted to the activity in the physical education hour, systematized to application tracks, dynamic games and relays

accumulated with traditional thematic content found in the school curriculum for physical education and sports curriculum set out for the elementary school, 3rd and 4th grades.

The structure of the thematic units in terms of selection and systematization of means specific to psychomotricity, according to the specialty studies in the international literature (Schneider, 2004) in his work: *Koordinativen psychomotorischen - Schulung der koordinativen und psychomotorischen, Fähigkeiten – Wie kann man die „Kopplungsfähigkeit“*), recommends a complexity of ways to act specific to psychomotricity used within the didactic process specific to school physical education hours. The statements of the German author are continually interacting with the reflection of psychomotricity's components, applied systematically and as means specific to the development of the psychomotor side in the physical education and sports hours in elementary school.

The intervention action on the thematic units of learning was carried out by us with a view to identify a new strategy of action within physical education and sports lessons in elementary school, 3rd and 4th grades, which will act on the structure of psychomotor capacity, having formative impact over the two component sides, general motor skills and psychomotricity, by a complex system of action by specific materials and means.

Tabel 1. DESIGN OF THEMATIC UNITS – 4TH GRADE

THE SKILLS OF BALANCE, GENERAL COORDINATION AND DEVELOPING PSYCHOMOTRICITY

Number of lessons assigned: 6

CONTENTS:

- Thematic cycle: 1 - shifts in balance on narrow surfaces and up;
 Period of carry out: November 12 – December 7 - developing the capacity of balance;
 Practice duration: 15 min; - travel on raised surfaces combined with other skills;

OBJECTIVES: To execute a sequence of three turns of 90 °, 180 ° and 360 °, an area of balance suspended at 1.6m (equilibrium surface layer of protection provided under the mattress);

| LESSON NO. | REFERENCE OBJECTIVES | CONTENT DETAILS | LEARNING ACTIVITIES | RESOURCES | HOMEWORK |
|------------|--|---|--|--|--|
| 1-2 | <p>1.5. To use the skills acquired under complex and varied conditions.</p> <p>2.2. To show interest and perseverance in developing motor and psychic qualities.</p> <p>5.2. To show initiative when collaborating with teammates during the practical</p> | <p>Moving certain objects by pulling and pushing, individually or in group.</p> <p>Moving certain objects by educating team spirit.</p> <p>Dynamic games and relay races;</p> <p>Hands and knees crawling;</p> <p>Low crawling and forearm and knee crawling;</p> <p>Moving</p> | <p>Walking in gym bank balance standing in balance over elastic trampoline jumping, gymnastics bank is turned upside down, Thus will use narrow surface.</p> <p>Walking in gym bank balance sits perpendicular in balance over another bank gymnastics upside down on the ground, walking the bank balance is also upside down, Thus will use narrow</p> |  | <p>To carry three objects in the house (bucket, bag, chair, etc)</p> |

| | | | | | |
|--|--------------------|--|---|--|--|
| | activities. | certain objects by pulling and pushing, individually or in group; | surface. It forms a balance that will be rocking gait crossing controlled by children. |  | |
|--|--------------------|--|---|--|--|

Content inspired by (Scarlat, 1993), (Rață & Constantinescu, 2002), (Rață & Rata, 2006) and (Cojanu, 2009)

7. Results Obtained after Applying the Assessment Instruments Suggested

The preliminary experimental study has proposed to research the actual level of motor and psychomotor training in pupils within the 3rd and 4th grades reference. Thus, within the preliminary experiment, we pursued to demonstrate hypothesis number 2, which states that: *from the perspective of the strategy to act on the optimization of the psychomotor capacity, we think we will be able to improve the quality process of development of the two sets of parameters, motor and psychomotor, only if we will create thematic systems of acting with a predominant content of psychomotor means adapted to the process and provided by operational objectives measurable and noticeable (quality of the didactic process)*, fact proven correct by the results obtained following the carry out of eight general motor skills tests and four tests which capture the main components of psychomotricity. We think that this process to improve the component parameters of the general motor skills side as a support pillar and within the own practical experiment, thus laying the support base for the psychomotor capacity developed by pupils from elementary school, 3rd and 4th grades.

On the evolution of results in the 4th grade in initial testing, we notice that to the comparative analysis of significance t- test of the two samples under research (control-experimental), none of the **eight trials** making up the general **motor skills profile** was statistically different.

| | 25 m | Standing long jump | 4-cycle exercises | Agility | Hanging exercise | Abdomen | Push-ups | Target throw |
|--------------|-------|--------------------|-------------------|---------|------------------|---------|----------|--------------|
| t critical | 2.01 | 2.01 | 2.01 | 2.01 | 2.01 | 2.01 | 2.01 | 2.01 |
| t calculated | 1,54 | 1.14 | 1,52 | 1,57 | 1.69 | 1.94 | 1.87 | 1.88 |
| p | 0.128 | 0.259 | 0.134 | 0.122 | 0.09 | 0.06 | 0.07 | 0.07 |

However, we can see that **on the evolution of results in the 4th grade in the final testing**, the comparative analysis by the t-test of the two samples under research (control-experimental) shows that one (**Hanging exercise**) in the **eight trials** making up the general **motor skills profile** was not statistically different.

| | 25 m | Standing long jump | 4-cycle exercises | Agility | Hanging exercise | Abdomen | Push-ups | Target throw |
|--------------|------|--------------------|-------------------|---------|------------------|---------|----------|--------------|
| t critical | 2.01 | 2.01 | 2.01 | 2.01 | 2.01 | 2.01 | 2.01 | 2.01 |
| t calculated | 2.24 | 4.01 | 2.91 | 3.32 | 1.97 | 2.47 | 3,5 | 2,87 |
| P | 0.02 | 0.0002 | 0.005 | 0.001 | 0.06 | 0.01 | 0.001 | 0.006 |

In the examinations regarding the *evolution of results in the 4th grade in the initial testing*, the comparative analysis by the t-test of the two samples under research (control-experimental) shows that none of the **four trials** making up the *psychomotricity profile* was statistically different.

| | Bourdon T. | Lalume T. | Matorin T. | Romberg T. |
|--------------|------------|-----------|------------|------------|
| t critical | 2.01 | 2.01 | 2.01 | 2.01 |
| t calculated | 1.08 | 0,428 | 0,839 | 0.682 |
| P value | 0.283 | 0.670 | 0.405 | 0.498 |

However, we can see that *on the evolution of results in the 4th grade in the final testing*, the comparative analysis by the t-test of the two samples under research (control-experimental) shows that three of the **four trials** making up the *psychomotricity profile* were statistically different, except for the Matorin Test.

| | Bourdon T. | Lalume T. | Matorin T. | Romberg T. |
|--------------|------------|-----------|------------|------------|
| t critical | 2.01 | 2.01 | 2.01 | 2.01 |
| t calculated | 2,08 | 2,43 | 1.53 | 2,14 |
| P value | 0.04 | 0.01 | 0.131 | 0.03 |

Legend:

| |
|---|
| P > 0.05. Statistically, the results of the two tests are not significantly different. The null hypothesis is accepted. |
| P <= 0.05. Statistically, the results of the two tests are significantly different. The null hypothesis is rejected. |

The specific strategic directions to act in relation to the optimization of the psychomotor capacity in the pupils from elementary school, 3rd and 4th grades are:

Thus, the essence of strategic ways to act so as to optimize the psychomotor capacity of the pupils in elementary school, grades 3 and 4 are: Systems to act, made up of psychomotor means, designed and adapted specifically to the physical education and sports hours in elementary school lie at the basis of the action strategy within the didactic process of the thematic units of learning; Application of the thematic units programmes made by us within the preliminary experiment in carrying out the didactic activity specific to the physical education and sports hours in elementary school, 3rd and 4th grades on the experimental sample selected out of 50 pupils, a classroom of 25 pupils in 3rd grade and one of 25 pupils in 4th grade; Carry out of didactic activity by using thematic units made by us within the preliminary experiment consisted of a different activity of fulfilling homework, different from the classical activity, provided by the Physical Education and Sports Syllabus in that psychomotor means were accessed

directly, designed in **accordance/coefficient manner** with the means specific to general motor skills; The application content of psychomotor means, specifically adapted to the didactic process appropriate to the carry out of physical education and sports hours in the elementary school bring a favorable input through applying during the lesson a number of variables of materials and accessories, but more than that, accent is laid on storing the motor skills specific to the different sport branches under varied conditions.

8. Conclusions

We nominated the commencement structure within the design of conclusions drawn from the carry out of the preliminary experimentation stages as hypothesis no. 1: ***We think that if we design and make the physical education's contents for elementary school from the complex perspective of psychomotor capacity, we will then be able to determine the enhancement of the parameters to act on the appropriate readiness, both of the motor, and the psychomotor side.***

Starting from this hypothesis, we have drawn the following conclusions:

Following data interpretation from a statistical point of view, resulted from the carry out of the preliminary experiment, we think that by applying the thematic units of learning, made under a specific content of psychomotor action systems, systematized and implemented into dynamic games, relay races and application tracks, applied within the physical education and sports hours in elementary school, 3rd and 4th grades, new perspectives of operational objectives' achievement will be brought forth;

To conclude, from a statistical point of view relating to the interpretations specific to our field of activity, we can confirm that by applying the thematic units of learning, **carried out with a specific content of systems under psychomotor action, designed on the basic substratum of classical units**, applied within the physical education and sports hours in elementary school, 3rd and 4th grades, lead the specialty didactic process to a quality and effective impact of optimization of psychomotor capacity.

Implicitly, this strategy to apply the thematic units of action carried out by us with a predominant percentage content of psychomotor means cumulated with those recommended and found nationally in the school curriculum of physical education and sports, will lead to the optimization of the achievement of school physical education's objectives in elementary school effectively, qualitatively and persistently, which is reflected over the school population positively, to changing the study level, elementary, middle school.

Finally, we think it is a modern modality to apply the thematic units of action, made by us using psychomotor means, implemented systematically in these, modality having a positive and attractive modality, synchronized with the requirements and expectations displayed by the pupils in elementary school, 3rd and 4th grades.

We can state that a teaching manner specifically designed to act on the psychomotor capacity of the content in the physical education and sport subject in elementary school will cover the requirements of the curricular reform, and the design of content starting from objectives achieved by examinations and assessment tests from which to result the quality and effectiveness of the instructional-educational act will resize the importance of this subject.

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