

**STUDY ON THE PRACTICE OF CHESS BY CHILDREN AGED
BETWEEN 8 AND 10 YEARS OLD ONLINE THROUGH
CONTENTS SPECIFIC TO PHYSICAL EDUCATION**

Agache Gheorghe¹

Vizitiu Elena²

¹*Gymnasium School no.17 Botoşani, Romania*

²*Ştefan cel Mare University of Suceava, Romania*

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Abstract: In the context of the development of information technology and computers we can talk about equipping schools with internet networks, intranet, computers, tablets and mobile phones which contain software that promotes the development of online education successfully and efficiently. The training of chess-playing students is an essential objective in obtaining good results in competitions. In this sense, the theoretical training must be harmoniously combined with the development of psychomotor qualities, and the teacher-trainer must demonstrate a rigorous ability to select methods and means from physical education and sports, as well as those specific to psychomotor skills, necessary to achieve the proposed objectives for an effective training of chess-playing students, both for classical and online competitions.

The research was carried out over a period of two months (October, 2020 - December, 2020) on two groups of children aged between 8 and 10 years old, from School No. 17 Botosani, representing the experiment group (28 students) and the control group (28 students,too). The methods used in conducting the study were the observation method, the testing method and the statistical-mathematical method.

Introduction: In this paper, we will study attention as a mental skill, which is the quintessence in chess lessons, achieving important goals such as volume, intensity and distributivity. The specific contents of physical education favour the improvement of the quality of attention, that is why the use of physical exercises frequently helps the brain to ignore the disturbing factors [1,2,3,5].

The authors consider attention to be the psychic process by which a person's activity is oriented, spontaneously or voluntarily, towards an object or phenomenon from the external world or towards his/her own ideas, representations or activities.

The attention process develops from an early age, when a child is 2 months old his/her eyesight is oriented towards stimuli that capture his/her interest, and in the period of 3-6 years old the attention acquires a voluntary character, the child assimilating most of the knowledge in this way. A person's attention is differentiated on the basis of certain characteristics, capitalizing on the innate potentialities specific to this psychophysiological process [4,6,7,9].

As for the intensity and duration of concentration, they largely depend on the ability of the chess-playing students.

Educating the stability or persistence of attention through the contents of physical education is of practical interest, because this acquisition of attention gives you the opportunity to stay focused for a much longer time, for example, in a game of chess. As there are many extreme situations, in which students can be distracted by an external factor and their attention is currently blocked, we will propose contents of physical education and sports exercises as a way to increase the distributivity of attention in such situations [3.10].

Material and methods: *Hypothesis of the paper:* We assumingly start from the premise that, if we improve the specificity of mental skills, the attention of students who play chess, through the contents of physical education and sports, in the context of online learning process, we can achieve much better sports results.

The aim of this research paper is to select the most effective contents from the field of physical education and sports, designed to develop the attention needed by students aged 8 to 10 years old, who play chess.

The objectives of the paper:

- Increasing the sports performance of chess-playing students, resulting in optimizing the main psychomotor qualities, especially mental endurance.
- Increasing the parameters of attention, a key factor in the training of chess-playing students.

The study subjects of the current research are students from class III B, 28 students: 16 boys and 12 girls, who represent the experiment group, and students from class III A, 28 students: 16 boys and 12 girls, representing the control group, all the children being aged between 8-10 years old. The students from the experiment group are chess players, being members of the chess club within the Sports Association "Cutezatorii" of School No. 17, Botosani, under the guidance of Agache

Gheorghe, teacher and chess trainer. The research took place at School no. 17 Botosani for two months (October-December 2020).

Program of methods used for developing psychomotor qualities

The following exercises are meant to put the whole body to work: - running on the spot and jogging, with the fists at the chest, - from the position with the legs spread wide apart, with the arms on the hips: bending forward, backward, right, left, then turning to the right and to the left - stretching the arms forward and / or putting the hands on the hips and doing squats.

For static and dynamic balance:

- standing on one leg, then on the other, for a few seconds, - lifting and lowering on the tips of the feet, - "The Balance".

Breathing exercises: - breathing in- breathing out (deep) 3-4 times, counted, - alternative breathing on nose and mouth, - breathing exercises with raising the arms while breathing in and lowering them to the chest while breathing out.

Exercises for coordinating the movement of the arms and hands: - raising the arms, then lowering and putting the hands on the knees, crouching, - stretching the arms forward, up, sideways and down;- rotating the arms from the sideways position above the head and lowering them by the body - rotating the arms forward, closing and opening the fists, then with the fists clenched, rotating them inwards and outwards.

Basic motor coordination activities:- from the position with the torso bent at 90 degrees, touching the floor with the soles, bending forward and upward and with open eyes, then with closed eyes, - rhythmic jumps, raising hands („rabbit jump’’), - lying on the back (supine position), the subject is asked to stand up, raising first his head, then his neck, shoulders, then the rest of the body, -lying on the chest (prone position), the subject must stand up, leaning on his hands, then jumping to his feet.

Analytical education program:- stretching the fingers from the bent or closed fist position, with and without spreading them, - from the position of palm-down on the table, with the fingers spread, participants start closing and opening the fist; - exercises for abduction and adduction of fingers from the position of outstretched palm and glued fingers, - exercises for flexion and extension of the fingers: palm outstretched on the table and fingers slightly apart (flexion and extension of each finger in turn, simultaneously flexion and extension of the index and middle

finger, of the ring and middle finger, of the pinky and the middle finger, of the index and ring finger), from the position with the hands together and the fingers slightly apart (flexion of the index finger of the right hand inside the middle fingers and the index finger of the left hand); finger rotation exercises (describe small circles with each finger, in turn, with the fingers joined or only with two fingers joined).

Attention exercises: - copying, dictation, reproduction – building blocks, -the "grid" exercise - "pendulum".

The exercises are selected from the specialized literature [3, 4, 8, 9].

For this experiment I used two tests through online means :

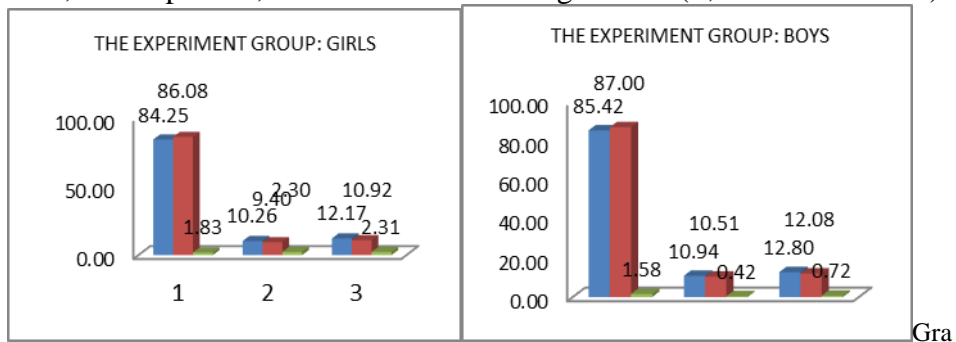
- "Tapping" test - adapted by G. Bontilă after Walther.
- Rhombus test - Distributive attention.

Discussions and results:

Table no.1

THE EXPERIMENT GROUP: GIRLS TAPPING TEST			THE EXPERIMENT GROUP: BOYS TAPPING TEST				
	T _i	T _f	D		T _i	T _f	D
x̄	84,25	86,08	1,83	x̄	85,42	87,00	1,58
α	10,26	9,40	2,30	α	10,94	10,51	0,42
C_v	12,17	10,92	2,31	C_v	12,80	12,08	0,72
t=0,023001			t=0,003786				

In the girls' experiment group, in the Tapping test, we can notice a difference of 1,83 in the average score between the initial and the final tests, where $p < 0.05$, the statistical link is significant (S, 95% confidence).



Graphs no 1

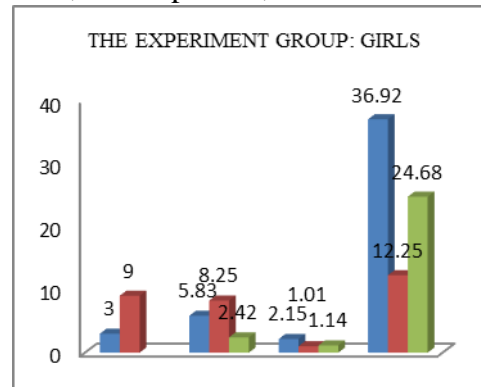
Graphs no 2

In the boys' experiment group, in the Tapping test, there is a difference of 2,42 in the average score between the initial and the final tests, where $p < 0.05$, the statistical link is significant (S, 95% confidence).

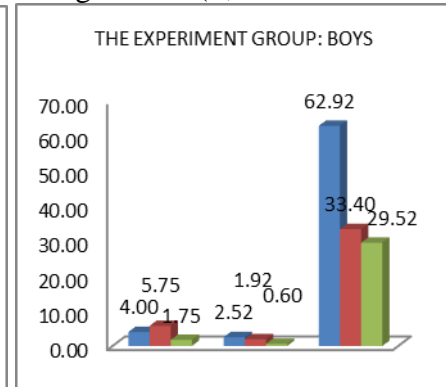
Table no.2

THE EXPERIMENT GROUP: GIRLS THE RHOMBUS TEST			THE EXPERIMENT GROUP: BOYS TAPPING TEST				
	T_i	T_f	D	\bar{x}	T_i	T_f	D
\bar{x}	5,83	8,25	2,42	\bar{x}	4,00	5,75	1,75
α	2,15	1,01	1,14	α	2,52	1,92	0,60
C_v	36,92	12,25	24,68	C_v	62,92	33,40	29,52
t=0,00496657			t=1,31903				

In the girls' experiment group, in the Rhombus test, we can notice a difference of 2,42 in the average score between the initial and the final tests, where $p < 0.05$, the statistical link is significant (S, 95% confidence).



Graphs no 3

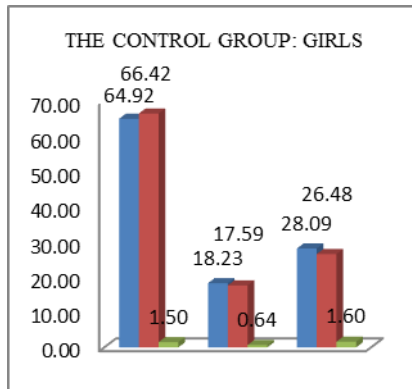
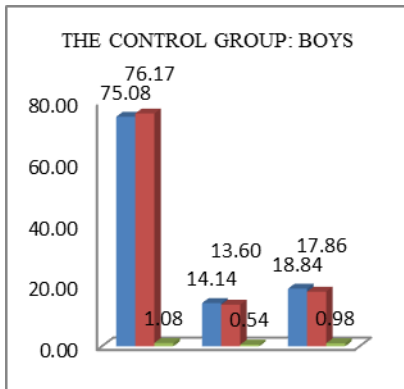


Graphs no 4

In the boys' experiment group, in the Rhombus test there is a difference of 1,75 in the average score between the initial and the final tests, where $p < 0.05$, the statistical link is significant (S, 95% confidence).

Table no.3

THE CONTROL GROUP: GIRLS –THE TAPPING TEST			THE CONTROL GROUP: BOYS –THE TAPPING TEST				
	T_i	T_f	D	\bar{x}	T_i	T_f	D
\bar{x}	64,92	66,42	1,50	\bar{x}	75,08	76,17	1,08
α	18,23	17,59	0,64	α	14,14	13,60	0,54
C_v	28,09	26,48	1,60	C_v	18,84	17,86	0,98
t=0,00097915			t=3,26105				



Graphs no 5

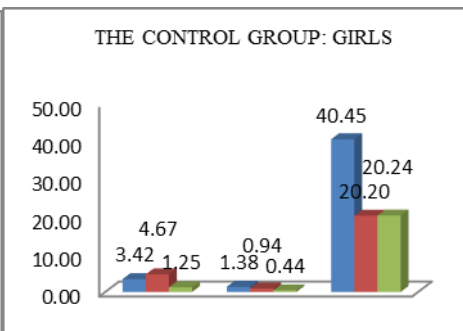
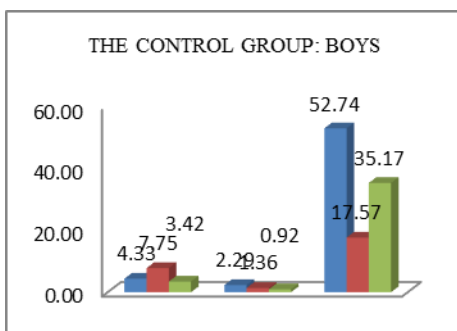
Graphs no 6

In the control group: Girls, in the Tapping test, we can notice a difference of 1,50 in the average score between the initial and the final tests, where $p < 0.05$, the statistical link is significant (S, 95% confidence).

In the control group: Boys, in the Tapping test there is a difference of 1,08 in the average score between the initial and the final tests, where $p < 0.05$, the statistical link is significant (S, 95% confidence).

Table no.4

THE CONTROL GROUP: GIRLS THE RHOMBUS TEST				THE CONTROL GROUP: BOYS THE RHOMBUS TEST			
	T_i	T_f	D		T_i	T_f	D
\bar{x}	3,42	4,67	1,25	\bar{x}	4,33	7,75	3,41
α	1,38	0,94	0,44	α	2,29	1,36	0,92
ϵ_v	40,44	20,20	20,24	ϵ_v	52,74	17,57	35,17
t=2,37178				t=7,08071			



Graphs no 7

Graphs no 8

In the control group: Girls, in the Rhombus test, we can notice a difference of 1,25 in the average score between the initial and the final tests, where $p < 0.05$, the statistical link is significant (S, 95% confidence).

In the control group: Boys, in the Rhombus test there is a difference of 3,41 in the average score between the initial and the final tests, where $p < 0.05$, the statistical link is significant (S, 95% confidence).

Conclusions: 1. The education of motor skills stimulates the development of the distributive characteristics of attention necessary for chess players in online training. 2. The stimulation and implementation of specific psychomotor training by introducing exercise programs, educational software, online platforms lead to the development of attention acuity and implicitly of performance in chess competitions. 3. In the Rhombus test, the boys' control group has a statistically insignificant link to the boys' experiment group, $p < 0.05$.

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