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## ARCHERY AS A MEANS OF CONCENTRATION INCREASE

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### ABSTRACT

The study presented in the paper is based on the real results in archery training classes of 8-10-year-olds. The degree of concentration, its increase and influence on the abilities of participants have been established and improved with the help of Shakola's tests.

**Key words:** concentration, Shakola's tests

The concentration of attention is retention of information about any object in the short-term memory. Such retention supposes separation of the object as a concept from the general idea of the world. Concentration is one of the most important properties of attention.

Concentration is of paramount significance for education. It controls the scheme of compression of teaching contents in an understandable form that can be learned. Concentration is not a constant vector: in every lesson, even in the most complex one, there is a primary part – focusing, the second part is progress and the third part is depression. The learning process depends on the correlation between the first two parts and the last one or the concentration and psychosomatic exit from it. With higher prosperity of the primary and secondary parts, the concentration of attention performs a useful activity for the student, but if the balance between these two phases is shifted to the third one, then the progress is limited.

To expand the opportunities for increasing the concentration of attention in temporal terms and in favor of the educational process, sport classes – archery – are used and the tests of Shakola are applied. Sport, especially the individual one, requires peace of mind to achieve certain results. These results directly correspond to concentration during the performance.

The developed methodology consists of two archery cycles according to the rules of international competitions: 5 archeries each of 3 shots being individually fixed and finally summed to get the total result for each cycle.

The 3 tests developed by the famous psychotherapist Valeriy Shakola are conducted between the two rounds of archery. The tests are both informative about the level of children's concentration and training. They are performed three times repeated one after the other, separated in time and accepting the best achievement.

Shakola's tests to increase attention concentration include:

1. "Internal time" – you count in mind seconds 1,2,3 up to 60 seconds checking the results with a timer. It is accepted that good concentration is to count  $60 \pm 6$  sec for 1 minute. The number counted, which is more or less than  $60 \pm 6$  sec is an evidence of decreased concentration, stress and even a kind of disease.

2. "Breathing" – focusing on breathing when a finger is shrunk with any diversion of attention from breathing. The number of bent fingers for 1 minute of performance is noted. The presence of 3 bent fingers is reported as a rapid loss of concentration.

3. "Pencil and paper" – concentration on the touch of a pencil to paper when drawing a random line. When interrupted, the dot is marked with a

dash. The performance is for 1 minute. The presence of more than 3 interruptions is reported as a loss of concentration.

The tested group consists of 20 children aged 8-10, girls and boys, students at St. Kliment Ohridski Primary School. The results of the first archery cycle are presented in **Table 1**.

**Table 1.** First archery cycle (points)

No	Archery 1	Archery 2	Archery 3	Archery 4	Archery 5	Total
1	6,8,9	7,5,9	7,5,6	8,7,9	8,10,9	113
2	7,7,9	5,8,4	6,6,8	5,9,8	7,7,6	102
3	8,8,7	6,8,9	6,7,7	8,7,6	8,7,9	111
4	7,5,8	8,5,9	8,6,7	5,6,9	8,7,6	104
5	7,6,4	8,7,9	8,7,4	8,9,10	8,8,7	110
6	7,6,6	8,7,10	7,6,8	7,7,9	9,6,9	112
7	6,5,8	5,7,6	6,8,7	6,8,8	7,8,8	103
8	7,6,8	6,4,8	8,5,7	7,6,9	10,8,7	106
9	8,4,5	5,5,7	6,8,7	7,8,4	7,6,9	96
10	5,8,8	6,4,8	7,9,5	8,7,9	8,9,8	109
11	6,7,5	5,8,9	9,9,7	8,5,7,	10,8,4	107
12	7,6,9	5,8,4	7,7,6	5,9,8	8,9,4	102
13	6,5,7	7,8,4	8,6,9	4,5,7	7,6,9	98
14	8,6,6	6,9,9	8,10,7	8,9,6	6,8,9	115
15	5,7,8	8,7,4	8,9,9	7,6,8	9,6,7	108
16	6,8,4	8,8,7	7,9,9	9,8,9	10,8,7	117
17	8,7,8	7,9,9	6,5,9	8,6,7	9,7,8	113
18	7,6,9	5,8,6	4,9,9	7,6,8	8,4,7	103
19	5,9,8	7,4,9	8,6,7	5,8,9	9,8,9	111
20	7,6,5	5,7,4	8,6,7	6,8,7	8,9,4	97

The target of archery is of a maximum size and located at 10 m. The results can be grouped into 3 groups: less than 100 points – 3, between 100-110 points – 9 and over 110 points – 8. They are related to the physical and mental characteristics of children who are of different ages.

The Shakola test is performed after the first cycle of archery. The results are pre-processed and presented as best achievements and percentages of all children in **Table 2**.

**Table 2.** Results according to Shakola (%)

Level	1 <sup>st</sup> test	2 <sup>nd</sup> test	3 <sup>rd</sup> test
High	72	65	74
Medium	21	18	15
Low	7	17	11

According to Shakola's tests, the achieved levels show a predominant high degree of concentration, most of the results being of the highest level during the third test. The tests are performed in sequence one by another student three times for each test. Thus the tests turn to be training as well.

The second cycle of archery is performed immediately after the completion of concentration

tests. The results processed as a total sum lead to the following conclusions:

1. All participants in the experiment have increased their results, as there are no children with results under 100 points in archery; the number of students with results over 120 points has increased, so they could form their own group in the first archery.

2. The study has proved that the tests for attention training and other similar applicable good practices are extremely important for the development of educational process and even for those who actively practice different kinds of sport.

#### **REFERENCES**

1. <https://www.shakola.com>