

**NATIONAL SPORTS ACADEMY**

**„Vasil Levski“**

**DEPARTMENT OF "WEIGHTLIFTING, BOXING,  
FENCING AND SPORTS FOR ALL"**



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**ASPECTS OF THE SPECIALIZED SHOOTING  
TRAINING OF THE EMPLOYEES OF THE  
MINISTRY OF INTERIOR**

**ABSTRACT**

**Sofia, 2024**

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**ABSTRACT**

of a dissertation  
for awarding the educational and scientific degree  
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in professional  
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**The dissertation was approbated, discussed and proposed for official defense by the Department of Weightlifting, Boxing, Fencing and Sports for All at the National Sports Academy "Vasil Levski".**

**The dissertation contains 134 standard typewritten pages. Illustrated with 17 tables, 25 figures and 2 appendices. The bibliography includes 112 literature sources, of which 23 national and international legal acts and 7 Internet resources.**

**The defense of the dissertation will take place on 14.01.2024 at 14.00 in Hall A3 of the National Sports Academy "Vasil Levski".**

## **INTRODUCTION**

With the growth of interdependence and globalization processes in the modern world, internal insecurity does not remain closed within society. Very soon it grew into regional uncertainty and logically reached a global crisis.

The political and socio-economic changes that have occurred in the Republic of Bulgaria in recent years naturally reflect changes in the structure, tasks, functions and rights of the Ministry of Interior. There is an increasing retreat from the environmentally friendly lifestyle and physical activity among society.

National security is a priority for every country. For its part, it takes appropriate measures to protect its interests, safety, independence and survival.

The development of the Ministry of Interior is not only in a narrow specialized direction, the development at the present stage is also related to leading methodological settings typical in the field of sportsmanship.

After numerous studies conducted by various specialists in the field of physical activity and sports in the Ministry of Interior, conclusions can be drawn in the direction of improving the different types of physical and shooting training of the employees of the Ministry of Interior with the introduction of specific methodological approaches and solutions.

## **CHAPTER ONE**

### **STATUS OF THE PROBLEM ACCORDING TO LITERATURE DATA**

#### **I.1.1. Factors determining the quality of shooting of employees in the system of the Ministry of Interior.**

The shooting training of employees in the system of the Ministry of Interior is an important topic that is becoming more and more relevant and is of vital importance both for the protection of one's own lives and for the protection of the lives of citizens. More and more often there are tragic incidents around the world with the use of firearms, in which children, citizens and police officers lose their lives due to armed aggression.

Shooting training is a major part of the official duties of the employees of the Ministry of Interior, in a direction aimed at improving the habits necessary for the professional performance of official tasks.

The specifics of the activities of the Ministry of Interior are aimed at protecting the rights and freedoms of citizens, combating crime, protecting national security, skills for quick and objective assessment of a specific situation, reflection and timely decision-making, especially when using firearms.

Each employee is obliged to be competent in the field of the use of firearms, both in theory and in practice - from removing the weapon from the holster to executing a shot.

The factors determining the effectiveness of shooting in police officers in real conditions are close to

those of elite athletes in biathlon. In the performance of their official duties, the police officers carry out their shooting in most cases after physical exertion, against the background of significant fatigue with high pulse and breathing, and increased excitability of the nervous system

The analysis of the literature sources shows a number of unresolved issues of the shooting training of the employees in the structures of the Ministry of Interior. And in particular, attention should be paid to such factors of accurate shooting as the relationship between the oscillations of the weapon and the shooter's body, the nature of the processing of pressure on the trigger depending on the firing position, the effect of preparation on the accuracy of aiming and oscillations of the weapon, the level of muscle tension when firing and its influence on the amount of tremor when aiming.

A number of studies are devoted to issues related to improving the quality of shooting. According to R. A. Zubrilov, in addition to internal factors (pulse, readiness, aiming, etc.), there are other factors that have a significant impact on the accuracy of shooting, and the author identifies the following: weather factors, material technical factors, psychological factors.

Reisterer U. dwells on the impact of vibrations of air masses on the visibility of targets, the presence of wind and temperature changes that lead to distortion of images (Reisterer U., 1986).

Cherkasov E. – 1982 examines the problem of adaptation to noise when reproducing the shot, and the author denies the benefit of using silencers.

Numerous experimental data obtained by various authors show that among athletes of different classes, ages, genders and sports experiences, there are inert, unbalanced, mentally unstable, hyperexcitable, extra- and introverted people, as well as those with a weak nervous system.

We cannot ignore the fact that the police profession is associated with great psychological stress. After all, law enforcement officers are a punitive body that often faces the negative attitude of society. The enlisted service weapon and its use in the statutory norms additionally puts psychological pressure on law enforcement officers.

Summarizing the research literature, we can identify the following factors important in shooting skills.

- Good stability when shooting, especially from a standing position;
- To perform an accurate shot, optimal work is required over time, on the trigger of the weapon, which plays an important role in shooting in a state of fatigue;
- Automation and coordination between the elements of shooting.

The execution of the shot requires the shooter to strictly adhere to a certain sequence of actions, coordinating them over time. Naturally, some of the actions that do not affect the quality of shooting can be performed in a different order, but the sequence of the main elements of shooting cannot be changed.

Most authors note that one of the main factors for high-quality shooting is the stability of the shooter-to-gun system.

Itkis believes that the formation of a certain reserve of resistance would lead to the improvement of the rest of the elements of the shooting technique.

"Stability – the ability of the shooter to hold the weapon with a flat sight in the area of the aiming point without deviations, and the longer the better."

A specific moment is the dynamics of the tremor, the technique of pressing the trigger, as well as the time characteristics of the shot (tempo, rhythm, duration of certain specific actions of the shooter), which remain hidden during real shooting. All this is done by the shooter's flair and hidden from the shooting instructors.

After conducting numerous studies by various specialists in the field of motor activity and sports in the Ministry of Interior, we found that conclusions can be drawn in the direction of improving the shooting training of the employees of the Ministry of Interior with the introduction of specific methodological approaches and solutions.

### **I.1.2. Conditional (dry) firing as a means of increasing the stability of the "shooter-weapon" system.**

Training without cartridges occupies a major place in the elite sport both during the preparatory and competitive periods. One of the most effective methods in shooting training in biathlon is conditional (dry) shooting.



According to Romanov E.I., Nosatiy R.I. and Morozova D.A., the main method in the preparation of shooters is conditional shooting, which is a set of training exercises for practicing basic technical elements, habits and shooting technique (Romanov E.I., 2018).

Conditional shooting can be divided into two options.

The first option is to hold the weapon and increase stability. In this type of training, the main emphasis is on the mechanical and physical aspects of body position, by correctly occupying the shooting position.

The second option includes the entire sequence of technical actions accompanying the shot, including the handling of the trigger, but without a cartridge. The main emphasis is on coordinating the grip of the weapon itself and the handling of the trigger, practicing the technique of smooth handling of the trigger.

Of course, with each stage of refinement, the time spent on a component changes. Thus, conditional shooting is one of the effective methods of shooting training.

Leading experts in the field of shooting sports share that in order to have a targeted impact on improving stability, it is necessary to build a habit of taking the correct position of the body for shooting.

### **I.1.3. Problem statement.**

From the summary of the information sources studied by us, it is concluded that the development of shooting is a function of the influence of many factors.

In our opinion, the creation of opportunities for improving the technical skills of the employees in the Ministry of Interior is leading.

During the execution of his shot reproduction model, the shooter is obliged to concentrate his attention on the elements: starting position of the body, breathing, holding the weapon and aiming, pressure on the trigger mechanism. It is almost impossible to concentrate attention on the four elements at the same time. All this is done with coordination, seeking the stability of the "shooter-weapon" system.

In the scientific and methodological literature, there is a sufficient number of studies related to the improvement of shooting, but the issues of improving the stability of the "shooter-weapon" system are practically not disclosed. This determined the research problem: how to increase the stability of the "shooter-weapon" system, which directed us in search of effective means and models of shooting training for employees in the system of the Ministry of Interior.

The study of the specialized literature gives us grounds to formulate the following working hypothesis of our study:

***We assume that after studying the existing foreign experience and with the implementation of a new improved system for shooting training, it will increase the quality of shooting of employees in the Ministry of Interior.***

## **CHAPTER TWO**

### **PURPOSE, TASKS AND METHODOLOGY OF THE STUDY**

#### **II.1. Purpose of the study**

*The purpose* of the study is to increase the resilience of the shooter-to-gun system by developing a model incorporating elements of sports involving shooting.

#### **II.2. Objectives of the study**

The main tasks of the study for the realization of the set goal are:

1. Establishing the status of the problem under study /historical review of the legal framework concerning the use of firearms in the Ministry of Interior.
2. Study and analysis of the level of shooting training of the employees of the Ministry of Interior.
3. Establishing the attitude, interests and motivation of the employees of the Ministry of Interior regarding their shooting training.
4. Development and testing of a model with new shooting exercises including conditional (dry) training aimed at increasing the level of stability of the "shooter-weapon" system.
5. Determination of the effectiveness of the use of conditional shooting in the shooting activities of the employees of the Ministry of Interior.

## **II.3. Methodology of the study**

### **II.3.1. Organisation of the study**

The current study was conducted in three stages:

First stage:

- Study of literature sources, analysis of the importance and role of shooting training of employees in the Ministry of Interior (February 2022 – January 2023)
- survey and determination of the attitude and attitudes of the employees of the Ministry of Interior regarding their shooting training (January - May 2023)
- testing of employees and determining their shooting readiness and shooting errors.

The results of the study served as a basis for the development of the content of the program, mainly the use of conditional exercises and the focus on increasing the level of stability of the "shooter-weapon" system.

Second stage (September - January 2023), a summary of the theoretical information was carried out, determining the relevant means of shooting training for employees and clarifying some procedural issues of the study.

Third stage (March – August 2023) experimental research. 40 employees from the Ministry of Interior took part in the study. The work on the program was carried out over a period of six months. The program consisted of the inclusion of exercises with conditional /dry/ shooting. The initial amount of work in duration in the first session was the same as in the developed program so far. At the next stage, with the development of adaptation processes, the duration of work increased.

The work was carried out under the guidance of two shooting instructors from the system of the Ministry of Interior, at an indoor/outdoor shooting range in the Regional Directorate of the Ministry of Interior - Blagoevgrad.

After the experiment, retesting was carried out.

**Object** of research is the technique of shooting training of the employees of the Ministry of Interior.

**Subject** of the study are the factors influencing the stability of the "shooter-weapon" system.

**The examined persons are:** police officers from different sectors and departments.

### **II.3.2. Research methods and indicators**

*(The study uses a complex methodology including: collection of empirical information and its analysis)*

#### **II.3.2.1. Methodology for collecting empirical information.**

- Study of normative documents and literature sources of information related to the management of shooting training of employees in the Ministry of Interior
  - Survey - to determine the attitude and attitudes of the employees of the Ministry of Interior regarding their shooting training.
  - Measurement – using "Shot timer";
  - Observation;

- Sports and pedagogical testing – to establish the level of shooting training of the employees in the Ministry of Interior.

On the basis of the literature and documentary analysis, a sufficient number of tests and indicators have been selected that meet the requirements for reliability, credibility, objectivity and standardization, which are included in the test battery of the study. In a synthesized form, the 6 sports and pedagogical tests used to establish the physical fitness of employees are presented in (Table 1).

***Table 1. Test battery***

<b>Not</b>	<b>Tests and metrics</b>	<b>Units of measurement</b>	<b>Accuracy</b>
<b>1</b>	<b>Strelkovi test 10 cartridge license status</b>	<b>Scatter measurement.</b>	
<b>2</b>	<b>Strelkovi test 10 cartridge license status</b>	<b>Hitting</b>	<b>Point</b>
<b>3</b>	<b>Shooting test 10 rounds knee position</b>	<b>Hitting</b>	<b>Point</b>
<b>4</b>	<b>Strelkov test 1 cartridge license status</b>	<b>Share. and dots</b>	<b>Points and no. Udrea</b>
<b>5</b>	<b>Shooting test 4 rounds position of the line</b>	<b>Share. and dots</b>	<b>Points and no. Udrea</b>
<b>6</b>	<b>Shooting test with one cartridge standing position</b>	<b>Share. and Falls</b>	<b>Bre Falls</b>

### **II.3.2.2. Methodology for information analysis.**

- The analysis of empirical data is realized through the statistical package for the social sciences SPSS\_25. Frequency analysis, variational analysis and comparative analysis (hypothesis testing) were used.
- Factor and comparative analysis were used – through the method of comparison, the individual parameters were compared during the experiment.
- An expert evaluation method was used to identify shooting errors based on the evaluation of the test results before and after the experiment.
- Frequency analysis was used to process data from the survey survey. It is expressed in a tabular and graphical representation of the number and percentage of respondents who indicated a given answer.
- Mathematical data processing methods were used to process the results of the study: the average percentage of hits is calculated using indicators (scoring, number of hits and misses).

## **CHAPTER THREE**

### **RESULTS AND ANALYSIS**

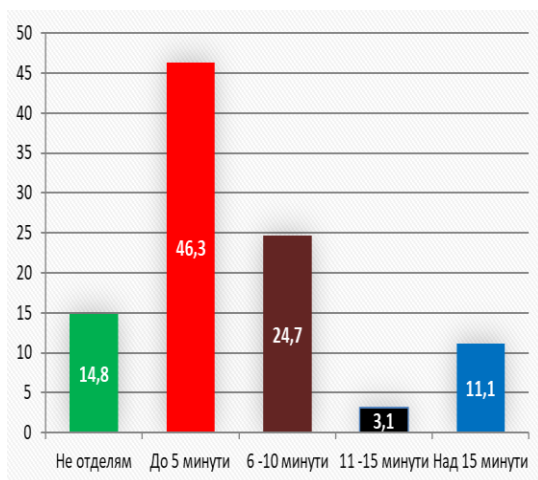
#### **III.1. Applications of small arms in the activities of the employees of the Ministry of Interior**

According to research and analyses by a number of experts, among the main requirements for the activities of the employees of the Ministry of Interior exercising their police powers on the street, there are good equipment and their skills for accurate shooting. Modern

trends in the development of firearms require a new structuring and flexibility of their use.

The analysis of the survey data gave us the opportunity to assess whether the model of shooting training developed by us would be really applicable in the shooting activities of the employees.

When asked how much time you spend on conditional shooting before the actual start of the actual shooting, the results show (Figure 1) that 46.3% of respondents spend up to five minutes on conditional shooting, while 14.7% do not spend time at all on such training.

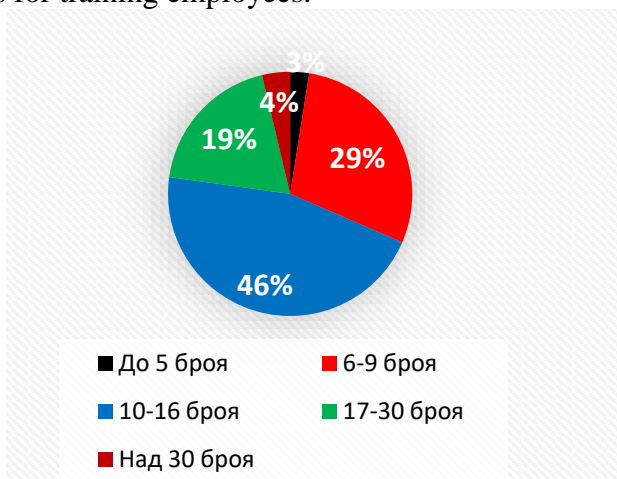


**Figure 1.** *How much time do you spend on conditional /dry/ shooting before the start of the actual shooting, during shooting classes?*



Training without cartridges occupies a major place in the elite sport, and their main goal is to improve muscle coordination.

Regarding the number of cartridges used in one occupation (Figure 2), we have quite different opinions, the answers to which give us grounds for looking for new options for training employees.



**Figure 2.***What is the number of rounds you fire during one class?*

The largest percentage of respondents (46%) said that they use from 10 to 16 cartridges in one lesson. The percentage (29.0%) who answered 6-9 is also not small, and 19% indicated that they use from 17 to 30 cartridges. Looking at the results in this way and adding the set hours for shooting classes, we consider the resource used in terms of the necessary training of employees to be insufficient.

### **III.2. A new model, forms, means and opportunities for improving the shooting training of the employees of the Ministry of Interior.**

From the analysis of many specialists who have studied the problem of shooting training, and after experiments on the "Skat" system, it is evident that the stability of the "shooter-weapon" system is a major factor influencing the implementation of good shooting (M. Itkis 1969, Y. Chugunov 1979, K. Dunaev and D. Aleksashi 2007).

The accuracy of the shot requires good stability of the body position and the correct execution of the elements of shooting. One of the indicators for achieving a good result is the grouping of shots.

To conduct our experiment within the framework of the research topic, we developed the content of a mesocycle, in which the specific thing is the conditional shooting. With the inclusion of more elements of conditional shooting in the shooting training program of the employees of the Ministry of Interior, we believe that the improvement of their shooting skills will achieve the desired results.

The focus on solving the problem of increasing the stability of the "shooter-weapon" system is aimed at shooting from a standing and kneeling position, the exercises to be applied and as close as possible to real situations, given that employees most often use weapons in these positions.

The training process of the experimental group includes work on exercises with conditional shooting, which were carried out with the following methodological features.

The main task of this type of exercise was to increase muscle coordination, which respectively leads to increasing the stability of the "shooter-weapon" system, strengthening the correct grip of the weapon, strengthening the shooting position, automating the elements of shooting.

The muscle groups involved in holding the weapon increase their muscle coordination based on the duration of the training sessions, which in turn leads to an increase in the stability of the "shooter-weapon" system and builds the so-called quality - muscle memory, extremely important in fast and dynamic shooting for successful solving problems in extreme situations.

### **III.3. System for optimization of shooting training for the employees of the Ministry of Interior.**

The experimental design, on the basis of which the experimental study was conducted, points to a comparative analysis for two independent samples and for two related samples.

The results of the comparative analysis between the two groups after the experiment give reason to assume that there are significant statistical differences in the studied variables. Only on the variable hits from Test 6, no such were found (Table 2). But this variable is dichotomous, and the hypothesis test used is not sensitive enough to such variables.

**Table 2.** *Comparative analysis between the two groups after the experiment.*

	U11	U22	U33	U44-Bp.	U44-T04	U55-Bp.	U55-T04	U66-Bp.	U66- n.
Mann-Whitney U	76.50	105.	61.5	107.	83.5	44.0	94.0	.000	150.
	0	500	00	500	00	00	00		000
Wilcoxon W	286.5	315.	271.	317.	293.	254.	304.	210.	360.
	00	500	500	500	500	000	000	000	000
Z	-	-	-	-	-	-	-	-	-
	3.342	2.56	3.76	2.50	3.23	4.22	2.87	5.41	1.66
		4	1	3	6	1	5	1	7
Asymp. Sig. (p)	.001	.010	.000	.012	.001	.000	.004	.000	<b>.096</b>
(2-tailed)									
Cohen's r	0.74	0.57	0.84	0.56	0.72	0.94	0.64	1.21	<b>0.37</b>

*Legend:*

*U11 - Shooting test 10 rounds standing position - scattering measurement.*

*U22 - Shooting test 10 rounds straight position - points.*

*U33 - Shooting test 10 rounds knee-point position.*

*U44 - Shooting test 1 cartridge standing position - time.*

*U44 - Shooting test 1 cartridge position straight - points.*

*U55 - Shooting test 4 cartridges standing position - time.*

*U55 - Shooting test 4 cartridges position straight - points.*

*U66 - Shooting test with 1 cartridge standing position (intuitive shooting) - time.*

*U66 - Shooting test with 1 cartridge standing position (intuitive shooting) - hit.*

Making a decision about the presence of statistically significant differences based on the p-value is risky. This value is strongly influenced by the volume of

the samples. This also requires the derivation of the size of the effect, which is a kind of correction of the p-value, depending on the size of the sample.

The magnitude of the effect was calculated on the basis of Cohen's coefficient  $r$  and was interpreted at values:  $>0.70$ , as much larger than typical,  $0.50-0.70$  as large or greater than typical, and at values of  $0.10-0.30$  as small or smaller than typical (Cohen, 1988).

The effect magnitude for all variables (except Hit) is large or much larger than typical. This suggests that the statistically significant differences found are not accidental and that they are highly reliable.

To reveal the degree of expression of the studied variables, the average values in the two groups were compared after the experiment. The data shows that there is progress in both groups studied, and it is more pronounced in the experimental group (Table 3).

From the data obtained, we believe that the methodological approach developed by us has a positive effect on the basic skills, guaranteeing the accuracy of the hit, which proves our working hypothesis. Evidence of this reasoning is contained in the data obtained, especially in the accuracy tests, in which the experimental group increased its results by an average of almost 10% compared to the indicators of the control group.

**Table 3.** *Mean values of the variables in the experimental and control groups after the experiment.*

	Experimental	I'm in control
Test 1 - 10 rounds straight position (dissipation)	14.89	20.36
Test 2 - 10 cartridges line position (points)	75.15	64.35
Test 3 - 10 rounds of belt positioning (points)	79.55	69.10
Test 4 - 1 cartridge standing position (time)	3.01	3.72
Test 4 - 1 position of the cartridge on the right (points)	7.75	5.85
Test 5 - 4 cartridges standing position (time)	4.30	6.23
Test 5 - 4 rounds, position of the lines (points)	30.25	25.70
Test 6 - 1 cartridge standing position (time)	1.09	2.05
Test 6 -1 cartridge position (hit)	1.2000	1.4500

To determine the direction of change – improvement or deterioration, the mean values before and after the experiment in both groups were compared.

With regard to dependent samples, the approach of intra-group comparisons was applied in the initial and final study of the two groups, the results of which are presented in Table 4 and Table 5.

**Table 4.** *Mean values of the variables in the experimental group before and after the experiment.*

	Before	After	Distinction
Test 1 - 10 rounds straight position (dissipation)	21.84	14.89	6.95
Test 2 - 10 cartridges line position (points)	56.15	75.15	19
Test 3 - 10 rounds of belt positioning (points)	70.55	79.55	9
Test 4 - 1 cartridge standing position (time)	3.94	3.01	0.93
Test 4 - 1 position of the cartridge on the right (points)	4.40	7.75	3.35
Test 5 - 4 cartridges standing position (time)	5.05	4.30	0.75
Test 5 - 4 rounds, position of the lines (points)	23.40	30.25	6.85
Test 6 - 1 cartridge standing position (time)	1.74	1.09	0.65
Test 6 -1 cartridge position (hit)	1.70	1.20	0.50

From the results presented in this way, we come to the conclusion that an average percentage increase in the control results is found in both groups of S&P groups, which we believe that the current system of shooting training for employees is currently effective.

**Table 5.** *Mean values of the variables in the control group before and after the experiment*

	Before	After	Distinction
Test 1 - 10 rounds straight position (dissipation)	22.15	20.36	1.79
Test 2 - 10 cartridges line position (points)	56.95	64.35	7.4
Test 3 - 10 rounds of belt positioning (points)	65.30	69.10	4.2
Test 4 - 1 cartridge standing position (time)	4.17	3.72	0.45
Test 4 - 1 position of the cartridge on the right (points)	4.00	5.85	1.85
Test 5 - 4 cartridges standing position (time)	6.88	6.23	0.65
Test 5 - 4 rounds, position of the lines (points)	22.00	25.70	3.70
Test 6 - 1 cartridge standing position (time)	2.23	2.00	0.23
Test 6 -1 cartridge position (hit)	1.60	1.45	0.15

It is evident from the testing done and the positive difference obtained in both groups that there is a certain priority among the employees of the experimental group, which in turn proves our working hypothesis, and confirms that there is a possibility for improving shooting training through the inclusion of our experimental methodological approach.

This is evidenced by the average values of the variables in the control and experimental groups before



the experiment, from which it is evident that the two groups of subjects have equal capabilities.

For higher information in terms of the analyses made, the comparisons from the obtained data of the differences in the variables before and after the experiment between the two groups appear (Table 6).

**Table 6.** *Differences in variables from the experimental and control groups before and after the experiment*

	Experimental	I'm in control
Test 1 - 10 rounds straight position (dissipation)	6.95	1.79
Test 2 - 10 cartridges line position (points)	19	7.4
Test 3 - 10 rounds of belt positioning (points)	9	4.2
Test 4 - 1 cartridge standing position (time)	0.93	0.45
Test 4 - 1 position of the cartridge on the right (points)	3.35	1.85
Test 5 - 4 cartridges standing position (time)	0.75	0.65
Test 5 - 4 rounds, position of the lines (points)	6.85	3.70
Test 6 - 1 cartridge standing position (time)	0.65	0.23
Test 6 - 1 cartridge position (hit)	0.50	0.15

One of the indicators for achieving a good result is the grouping of shots. After the experiment, the results showed that in the experimental group in Test1 grouping, we have a positive difference of 6.95 cm. improvement, against 1.79 cm. for the control group. With the values

obtained from the tests Test 4, 5 and 6, in which we have two components of the test - accuracy and rate of fire, the results again remain in favor of the employees of the experimental group (Table 6).

In terms of the results of Test 5 for time, we find only a small difference in favor of the experimental group. At the same time, the accuracy is twice as high for the employees who worked on our program. This leads us to come to the conclusion that the employees of the control group prioritized the speed of the shot, but not accuracy, which was not the purpose of the test exercise we set.

The achieved better results in the automation of movements are also confirmed by the results obtained in the intuitive shooting Test 6. As can be seen from the graph, we again have a predominance of the people from the experimental group in the results of both components time and hit.

## CONCLUSIONS AND RECOMMENDATIONS

The analysis of the results of the research and the generalizations made in the text give us grounds to formulate the following *conclusions*:

1. During the conducted pedagogical experiment to study the effectiveness of the new model and the new training programs for shooting training of employees in the Ministry of Interior, the following was observed:

- increase in the frequency of accurate shots;
- reducing the oscillation of the weapon in the horizontal and vertical directions;
- stability of the weapon before the first shot is fired;
- uniformity in the introduction of the weapon into the target, taking into account the individual approach of each of the shooters (from above, left or right);
- automation of movements, which leads to a higher rate of fire;
- Increasing the stability of the "shooter-weapon" system.

2. Based on the programs set by us in the new model, higher positive changes in the level of shooting skills of the employees from the experimental group are observed;

3. One of the main means of increasing the stability of the "shooter-weapon" system is the exercises with conditional (dry) shooting.

4. The exemplary mesocycle based on conditional shooting is effective in the shooting training of the employees of the Ministry of Interior.

### **Recommendations:**

1. To introduce a unified training program, including exercises with conditional (dry) shooting;
2. To observe the specified methodological sequence in the study of the single elements of the shooting technique;
3. Increasing the number of hours with shooting training classes for employees.
4. To continue work to increase the stability of the "shooter-weapon" system, in order to reduce the oscillation of the weapon and automate the uniform misleading of the weapon to the target;
5. The new model for improving the specialized shooting training of the employees of the Ministry of Interior remains open, due to the rapid changes in the international situation, and in connection with the continuous trends in raising the levels of specialized training of police officers.

### **CONTRIBUTIONS OF SCIENTIFIC WORK**

1. The main tasks and powers of the employees in the system of the Ministry of Interior are examined, emphasizing the importance of the level of specialized shooting training for the quality performance of their official duties.
2. Development and experimentation of a new model and training programs for shooting training of employees in the Ministry of Interior.
3. A large-scale study was carried out to establish the condition, attitude and level of shooting training of the employees of the Ministry of Interior who were assigned service weapons.

4. A model for shooting training has been developed, based on the inclusion of exercises with conditional shooting, and after the experiment, it shows an increase in the stability of the "shooter-weapon" system, respectively an improvement in shooting skills.

5. As a contribution, we take into account the effectiveness obtained in the development of the shooting success of employees, after the new training model we have experimented.

## **SCIENTIFIC PUBLICATIONS ON THE TOPIC OF THE DISSERTATION**

1. Klenovska, N. (2024). Approbation of a model for training in shooting training of employees in the Ministry of Interior. *Publisher: Institute for Knowledge, Science and Innovation*, 3/2024