

On the Significance and Use of National Defense Education in the Teaching and Training Tools of Domestic Light Weapons

Anbo Yang¹, Tiannan Fan², Linkun Niu³, Zhiming Li⁴, Shi Xiang⁵

1. School of Marxism, Yunnan Agricultural University, Yunnan Kunming 650201

2. Yunnan Police College, Yunnan Kunming 650223

3. School of Mathematical Sciences, University of Electronic Science and Technology of China, Sichuan Chengdu 611731

4. School of Resources and Environment, Yunnan Agricultural University, Yunnan Kunming 650201

5. School of Liberal Arts, Yunnan Normal University, Yunnan Kunming 650500

Abstract: In recent years, with the promotion of national defense education in our country, the demand for water bomb teaching and training equipment and its extended toys is constantly increasing. However, the traditional water bomb teaching and training equipment has some limitations, which limit its application in education. Therefore, this study aims to study and design a water bomb teaching and training appliance and its extension toys referring to the shape of domestic small and light weapons to meet the needs of national defense education. This paper used the literature data method and the experimental method to study and design the literature data method and the experimental method to study and design the literature data method and the experiment method. Through the analysis and induction of water teaching training equipment and extension toys, combined with the practical experience of this study, designed a new type of reference domestic light weapon shape of water teaching training equipment and its extension toys has high application value and promotion significance. In the future, its application in national defense education can be further explored to improve the teaching means and practical effect of national defense education.

Keywords: domestic light weapons, water balloon training, extended toys, national defense education, significance

Introduction

At present, with the rapid development of China's economy and the continuous improvement of national defense strength, the domestic research and development and production of light weapons have also made considerable progress. Among them, the simulation gun and water bullet gun as children's toys and training tools are more and more widely used^[1]. However, most of the imitation guns and water bullet guns on the current market are imitation of foreign products, and few refer to the design of light weapons. In the military theme film and television works, the use of light weapons props is essential. At present, the training gun has become the main substitute for the active light weapon props in the Chinese military theme film and television works. Although the training gun is similar in appearance to active light weapons, it is essentially a teaching and training tool and cannot be used in actual combat. Therefore, it is necessary to

Copyright © 2024 by author(s) and Frontier Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). http://creativecommons.org/licenses/by/4.0/ develop a kind of water bomb teaching and training equipment looking similar to China's light weapons, and extend it into children's toys, in order to improve the national defense awareness and military quality.

However, there are some problems in the market of water bullet gun and simulation gun, such as not high, material is not durable. Therefore, it is necessary to study and develop a high simulation degree, high quality water bomb teaching and training equipment and extension toys to meet the market demand. In order to achieve the above objectives, this research adopts the method of experimental research and literature analysis. Through the research and analysis of related products at home and abroad, we designed a water bomb teaching and training equipment and extension toy with similar appearance to China's light weapons, and conducted experimental verification and market research. The significance of the research lies in the development of a water bomb teaching and training equipment and extension toys similar to our appearance and light weapons, which can improve the national defense awareness and military quality, but also meet the market demand and promote the development of related industries.

1. The teaching and training equipment of water bomb and its extension toys

1.1 Summarizing the development process of water bomb teaching and training equipment

and its extension toys

With the development of modern science and technology, the kinds of teaching and training tools and extension toys are more and more abundant, and their popularization and application are of great significance in national defense education. Water bomb teaching and training equipment and its extension toys are one of them. Since the 1970s^[2], in the international market, such products began to appear gradually, and have been widely used. However, in China, this industry has only started in recent years.

In China, the development process of water bomb teaching and training equipment and its extension toys can be divided into the following stages: First, it is the research and development stage. In the 1980s, the water bomb teaching and training equipment and their extended toys were still in the stage of exploration and development, and the relevant research institutions at home and abroad have carried out various exploration and research in this field. Secondly, it is the initial trial production stage. In the 1990s, domestic enterprises began to gradually develop and produce water bomb teaching and training equipment and their extension toys, and initially explored the market and growth point of this field. Then came the stage of rapid development. With the continuous expansion of the domestic market and the increase of demand, water bomb teaching and training equipment and their extension toys are gradually mature. The industrial chain has been gradually formed, and the research and development, production, sales, service and other aspects of related products have been gradually improved. Finally, it is the field of national defense education. Under the background of the state vigorously promoting the integration of administrative and cultural undertakings, water bomb teaching and training tools and their extended toys are gradually applied in the field of national defense education, which has become a powerful tool for children's national defense awareness cultivation and patriotism education.

1.2 Analyzing the characteristics and advantages of water bomb teaching and training

equipment in the shape of domestic light weapons

The water bomb teaching and training equipment of domestic light weapon shape is a kind of emerging physical education teaching and training equipment. Compared with traditional water balloons, water bombs have excellent characteristics such as light weight, good elasticity and not easy to break, which can better meet the needs of students for physical education teaching and training. Among them, the water bomb in the shape of domestic light arms is a beneficial inheritance of military culture. In terms of form design, the water bomb of domestic light weapons are unique^[3], fine and vivid, which can arouse students' strong interest and enhance their enthusiasm for learning subject knowledge. Secondly, the water bombs in the shape of domestic light weapons are environmentally friendly and easy to clean, which can effectively avoid the trouble of traditional water bombs easy to breed bacteria and waste cleaning in the process of multiple

use. Finally, in terms of use experience, while ensuring the training effect, the use of water bombs with domestic light weapons is more safe and reliable, which can avoid problems such as injury accidents in the process of water polo shooting.

In addition, the water bomb teaching and training equipment of domestic light weapons is also of great significance in national defense education. The introduction of water bomb training in the course teaching can strengthen students' study of the hard power of military culture, improve their understanding of national defense security, and stimulate their patriotism. On this basis, the extended development of water bomb toys is a kind of military culture popularization activity for children, which helps children to in-depth understanding of national and military culture knowledge and promote their comprehensive and healthy growth.

1.3 Discussing the application of water bomb teaching and training equipment with the shape

of domestic light weapons in national defense education

Through the previous analysis, we can see that the water bomb teaching and training equipment in the shape of domestic light weapons has the advantages of looking like a real weapon, simple use method, safe and reliable. These advantages provide a good foundation for its application in national defense education. In national defense education, teachers can use these water bomb teaching and training equipment to carry out basic gun knowledge education for students, so that students can understand and master the relevant basic knowledge, such as gun structure, use methods, maintenance, etc. This kind of education can not only improve students' safety awareness and emergency response ability, but also lay a foundation for the subsequent practical training. These water bomb teaching and training means in the case that students can not accept real gun training. Through the use of these training tools for actual combat training, students can have a deeper understanding of the use of firearms and tactical cooperation, improve the actual combat skills and team cooperation ability.

2. Significance and use of national defense education

Water bomb teaching and training equipment is a kind of simulation weapon equipment widely used at home and abroad to reference the appearance of light weapons. Its appearance and feel are similar to real weapons, but water bomb can be used to replace live ammunition for actual combat training and tactical drill, so as to achieve multiple purposes such as reducing expenditure, reducing risk and improving the training effect. As a teaching and training tool, the national defense education significance of water bomb equipment is self-evident. Water bomb teaching and training equipment can stimulate students' national defense awareness and patriotic enthusiasm^[4]. By using water bombs with weapons, students can have a deep understanding of the country's military equipment and modern armed forces, and realize the importance of defending the country. At the same time, it can also stimulate students' patriotic enthusiasm, and enhance their sense of belonging and responsibility to the country. Secondly, the water bomb teaching and training equipment can improve the comprehensive quality of students. In the use of water bomb equipment, students need to carry out a variety of complex training and drills, such as aiming accuracy, shooting speed, cooperation and cooperation, etc. These training and drills can effectively improve the students' physical quality, psychological quality, coordination ability and other comprehensive quality, and make them become excellent citizens with a high level of military literacy. Thirdly, the water bomb teaching and training equipment can promote the school military education and campus culture construction. With the continuous improvement of China's national defense cause and national military strength, the cultivation of military quality and military education have become more and more important in modern higher education. Therefore, through the introduction of water bomb equipment and other military educational equipment, strengthen the school military education and military training, the construction of campus culture harmonious campus, has an important significance and role in cultivating students with national security awareness, law and discipline concept and collective sense of honor.

3. Educational application of water bomb teaching and training equipment

Water bomb teaching and training equipment is a kind of educational and training equipment that combines game elements and educational elements. It is very widely used, and can carry out education and training for students in various aspects.

3.1Stimulating students' interest and participation in learning

Traditional teaching methods are often boring, and students struggle to maintain interest and concentration, resulting in unsatisfactory learning results. The water teaching and training equipment can combine game elements to present a more vivid and interesting educational scene, stimulate students' interest and participation in learning, and improve the learning effect.

3.2 Improving students' observation ability and strain ability

The use of water bomb teaching and training equipment can not only improve students 'observation ability, exercise their acuity and insight to things, but also improve students' strain ability, so that they can more flexibly respond to various situations in the process of the game.

3.3 Enhancing teamwork and communication skills

Water bomb teaching and training equipment usually require multiple people to cooperate to complete the task, which can not only cultivate students' teamwork ability, but also improve their communication skills and better interact with classmates.

4. The future development prospect and application of water bomb teaching and training

equipment in the shape of domestic light weapons

At the same time, with the continuous development of the national economy^[5], the production and manufacturing technology of domestic small weapons is becoming more mature. Combining the two, the water bomb teaching and training equipment with the shape of domestic light weapons, which not only meets the needs of teaching and training, but also has a high value of promotion and application.

In the field of national defense education, the development of water bomb teaching and training equipment with the shape of domestic light weapons, which is conducive to showing the modern equipment and weapons of our army more intuitively and vividly. For students, through physical display and simulation training, students have the opportunity to personally feel the power and practicality of our military modern equipment, so as to stimulate patriotic feelings.

In the field of education, this kind of teaching and training equipment also has a wide application prospect.For example, in the weapon manufacturing major^[6], the teaching and training equipment can be used as a teaching practice platform, aiming at improving students' practical operation ability, so that students can better learn theoretical knowledge and directly apply the knowledge learned to production practice. In addition, it can also be used as entertainment tools in the folk, which can not only meet people's entertainment needs, but also help to the popularization of national defense knowledge.

5. Conclusion

With the continuous development of domestic economy and the improvement of science and technology level, the water bomb teaching and training equipment in the shape of domestic light weapons has gradually become a popular product in the national defense education and entertainment market. In the future, on the basis of ensuring the product quality and performance, it is necessary to further explore the research direction and application prospect of its sustainable development.

For the water bomb teaching and training equipment, the key lies in the effectiveness of its education and training function. The future research direction will be to better combine the current educational situation and military practice

needs^[7], optimize product design and educational training materials, and further improve the practicability and attractiveness of products. With the advent of the Internet + era, the teaching and training equipment in the shape of domestic light weapons can be diversified and innovative through the new technologies and platforms such as the new generation of mobile Internet and AR / VR. For example, it can be used for interactive experience activities in schools, education and training places such as schools, barracks and parks, or online promotion and marketing of products can be realized through online marketing and social planning. Finally, for the extension of water bomb teaching and training equipment of domestic light weapons, the future application prospect can not be ignored. On the basis of satisfying the safety and interest of products, more attention can be paid to the cultivation of children's practical ability, spatial imagination ability and teamwork consciousness, so as to further strengthen the cultivation and inheritance of national defense awareness.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

References

[1] Ma Jiangfeng, Liu Hongyu, Baihang, etc. A certain type of equipment virtual training system [J]. Ordnance Automation. 2021; 40 (10): 74-76.

[2] Lu Gang. (2016) Design and Testing of Amphibious Light Weapons System [D]. Nanjing University of Science and Technology; 2016.

[3] Nie Zhimin, Jin Wenqiang, Liu Yu, etc. Research on key technologies of data intelligence acquisition for small weapon shooting [J]. Network security and Data Governance. 2023; 42(S2): 215-220.

[4] Zhang Limin, Liu Hualin, Wang Haipeng, Li Xuteng. A bullet hole ring value determination method based on area labeling [J]. Journal of Ordnance Equipment Engineering. 2020; 41 (01): 100-104.

[5] Zhou Longxian, Li Dan. On the way to improve the adaptability of the new light weapons Force [J]. Journal of Sichuan Military Engineering. 2006; (01): 41-42+50.

[6] Zhang Huayang, Lin Penghui, Wang Can. Study on the differences in the technical requirements and test methods of catapult toys in domestic and foreign toy standards [J]. Light Industry Standard and Quality. 2022; (01): 88-90.

[7] Ma Zhijie. China's light arms in the eyes of the foreign military [J]. Light weapons. 2008; (20): 36-38.