

# Training Students' Practical Skills in Grenade Throwing for Distance and Accuracy in Teaching National Defense and Security at Hanoi Metropolitan University

Dinh Van Hung<sup>1\*</sup>

<sup>1</sup> Faculty of Social Sciences and Humanities, Hanoi Metropolitan University, Vietnam

\*Corresponding Author: [dvhung@daihocthudo.edu.vn](mailto:dvhung@daihocthudo.edu.vn)

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**Abstract:** *Educational innovation and international integration increasingly demand comprehensive development in individuals, focusing on knowledge, thinking, and practical skills. The subject of National Defense and Security (NDS) at the university level plays a crucial role in this, particularly in training practical skills in throwing grenades for distance and accuracy. This activity not only cultivates calmness, discipline, willpower, and determination in students but also helps them establish a solid mindset for completing academic tasks, builds a foundation for subsequent content, and prepares them for practical application in combat readiness when the Nation requires it. Therefore, strengthening practical military skills training in the NDS subject not only embodies the educational principle of "learning goes hand in hand with practice, theory is linked with reality" but also contributes practically to the cause of national construction and defense.*

**Keywords:** Practical skills training, grenade throwing for distance and accuracy, students

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## 1. Introduction

Education in National Defense and Security (NDS) for students is a critical mission contributing to the goal of comprehensive education, thereby enabling the younger generation to cultivate ethical qualities and develop practical capabilities to be ready to undertake the two strategic tasks: constructing and defending the socialist Republic of Vietnam. Chapter 2 of the Law on National Defense and Security Education 2013 clearly stipulates for higher education institutions that NDS is a core subject: "NDS in vocational colleges and higher education institutions is a compulsory subject. It ensures learners acquire basic knowledge of the Party's views, the State's policies and laws on national defense and security; building the All-people National Defense, the People's Security, the All-people National Defense posture linked with the People's Security posture, building the People's Armed Forces; supplementing knowledge on civil defense and military skills; and readiness to fulfill military service to defend the Fatherland..."(National Assembly (2013), Law on National Defense and Security Education, No. 30/2013/QH13, enacted on 19/6/2013, effective from 01/01/2014).

Directive No. 12-CT/TW dated May 3, 2007, on strengthening national defense and security education in the new situation (Directive No. 12-CT/TW dated 03/5/2007 on strengthening national defense and security education in the new situation); Government's Decree No. 139/NĐCP dated November 27, 2020, detailing the Law on National Defense and Security

Education. The Ministry of Education and Training promulgated Circular No. 05/2020/TT-BGD&ĐT dated March 18, 2020, of the Minister of Education and Training, issuing the NDS curriculum for the university level (Government (2020), Decree No. 139/2020/NĐ-CP dated 27/11/2020 of the Government detailing some articles of the Law on National Defense and Security Education, Hanoi).

In recent years, the teaching and practical learning of the NDS subject at Hanoi Metropolitan University (HMU) has received attention and investment; however, limitations remain. In the practical reality of teaching and training, the cultivation of students' (SV) practical skills (KNTH) in studying subjects in general, and the National Defense (ND) subject in particular, is a systematic physical activity. Many students believe that studying ND only requires memorizing the Party's and State's views, lines, and policies, while Practical Skills (KNTH) are not important under peacetime study conditions. Furthermore, lecturers (GV) have not truly paid attention to the role of practical military movement skills, often underestimating practical exercises. These perceptions and attitudes have negatively affected students' interest in the ND subject, thus reducing the quality of learning.

Among the contents of the ND subject, the grenade throwing technique is a very important part because it helps improve students' practical ability and throwing distance achievement. This content not only equips students with knowledge for their studies but also provides the learner with practical combat knowledge, helping to shape the personality of a revolutionary person in each student.

National Defense and Security Education (NDS) for students is an important task, contributing to achieving the goal of comprehensive education, cultivating qualities, practical competence, and readiness to undertake the two strategic tasks: building and defending the socialist Republic of Vietnam. At Hanoi Metropolitan University, NDS teaching and learning activities have received attention and investment, but limitations remain: a portion of students do not value practical skills (KNTH), while lecturers do not genuinely focus on military movement training. This affects learning interest and the quality of the subject.

Among the NDS contents, the technique of throwing a grenade for distance and accuracy plays a prominent role, helping students train their courage, discipline, and movement ability, while equipping them with knowledge and skills linked to combat reality. This is an important basis for shaping personality and the sense of responsibility for national defense among students in the current period.

## **2. Content**

### **2.1 General Theoretical Basis for Practical Skills Training**

#### **2.1.1 Basic Concepts**

**Skills Training:** Generally, a skill is the application of a person's ability/competence to solve one or more tasks to create the desired result. A skill is the ability to apply human knowledge and understanding to perform a certain job, which can be technical, emotional, professional, communication, or survival work.

**Practice (Thực hành):** Practice is the act of applying theory to reality or making it true through specific actions or deeds. Practice is a fundamental organizational form of teaching and learning. It is closely related to other forms of teaching, especially lectures and self-study. Practice is vital to the teaching-learning process. Through practice, knowledge is consolidated,

and skills and techniques are trained for learners. It is the basis for learners to connect theory with reality. Furthermore, practice contributes to intellectual development, personality education, and psychological preparation for learners.

**Practical Skills (KNTH):** Practical skills are the ability to effectively apply existing knowledge and experience in the training process to influence, change, or newly construct cognitive views, attitudes, mindsets, and form skills and techniques under permissible conditions. Practical skills in grenade throwing for distance and accuracy include: the skill of preparing the grenade, the skill of performing the preparatory movement, and the skill of performing the throwing movement. "Practical skills (KNTH) in grenade throwing are an important content in practical skills training, serving as a premise and foundation for learning other content. It equips learners with knowledge about the theory of throwing, the skill of throwing, and practical execution of the throwing technique," (Circular No. 05/2020/TT-BGD&ĐT dated 18/3/2020 of the Minister of Education and Training promulgating the NDS curriculum). Thereby, helping the learner achieve the best psychological state for practical throwing with good results.

### ***2.1.2 Characteristics, Structure, and Operating Principle of the Grenade***

**Characteristics of the Grenade:** It is a compact weapon with high lethality, typically issued to individuals in combat. This is a basic throwing exercise intended to equip the most fundamental techniques and movements when throwing a grenade.

**Structure of the Grenade:**

- **Grenade Body:** Often made of cast iron, steel, or hard synthetic material, it contains the explosive charge, and upon detonation, it shatters into fragments that scatter to cause casualties. The surface usually has grooves to increase fragmentation and aid the thrower's grip.
- **Explosive Filler (Charge):** The primary explosive material that causes the detonation, creating gas pressure and shattering the grenade body into small, lethal fragments. TNT is a common explosive.
- **Detonating Mechanism (Fuse):** Used for safety and to activate the grenade, including parts like the safety pin, lever, striker, striker spring, primer, delay charge, and detonator cap.

**Operating Principle of the Grenade:** When the safety pin is pulled out, the lever is released, freeing the striker to hit the primer. The primer ignites the delay charge, which burns for a specific duration (3-4 seconds) before flashing into the detonator cap, causing the grenade to explode.

To achieve high effectiveness when throwing a grenade, the thrower needs to perform the following skills well:

- **Proficiency in Throwing Postures and Movements:** During training, the trainee should flexibly adapt the throwing posture based on the terrain and surroundings to ensure safety and effectiveness.
- **Firm Grasp of the Grenade's Characteristics and Structure:** In training, students are thoroughly trained to understand the grenade, ensuring they remain calm and confident when performing the throwing movement.
- **Correct Determination of Timing and Throwing Angle:** This directly influences the accuracy and range of the grenade. Furthermore, good coordination of the arm's velocity, the body's stretch, and the leg's thrust is necessary. Keep the arm at a natural curve and slack when swinging the grenade to generate maximum velocity.

### **2.1.3 Necessity of Training Practical Grenade Throwing Skills in NDS Teaching for Students at HMU**

Training students' Practical Skills (KNTH) is a practical activity that clarifies the training of military movements, grenade throwing techniques, and the basic postures and movements of exercises applied by lecturers in teaching. For students, practical training in the NDS subject helps them develop skills, particularly fostering positivity, proactivity, and creativity in the cognitive subject's thoughts and actions to achieve the best results.

When engaging in practical activities, students actively work, observe, analyze, compare, synthesize, and generalize. This constantly activates and develops military practical thinking. "Learning goes hand in hand with practice" is the activity that helps students better acquire new knowledge and movement skills. Students directly perform manipulations and actions themselves, consolidating knowledge, avoiding passivity, and overcoming fatigue from classroom hours that follow a fixed, repetitive sequence. Thus, when conducting practical activities, students perform specific manipulations, thereby continuously refining their skills and techniques.

## **2.2 Practical Technique for Throwing a Grenade for Distance and Accuracy**

### **2.2.1 Standing Throwing Posture and Movement for Distance and Accuracy**

Applicable Cases: Standing grenade throwing is usually applied when the enemy and terrain permit (with cover high at eye level). It can be done from a stationary position or while moving.

Preparation Movement:

The left hand holds the rifle, lifting it to waist level, the muzzle slightly upwards. If the terrain allows, the rifle can be rested against an obstacle to the left, in front, with the rifle face turned to the right.

The right hand takes out the grenade, gripping it with the palm, fingers wrapped over the safety lever (duckbill). The left hand bends to straighten the safety pin.

When pulling the safety pin, pull it straight along the axis of the hole or rotate and pull the safety pin simultaneously (if it is a  $\Phi$ 1 or LD-01 grenade).

Movement 1: The left foot takes a long step forward. The left foot is aligned with the throwing direction axis. Using the toes of the left foot and the heel of the right foot as pivots, rotate the body to the right (the right heel is raised). The body leans slightly forward, the left knee is bent, and the right leg is straight.

Movement 2: The right arm swings the grenade down and back to gain momentum, and the body leans backward.

Movement 3: Use the thrust of the right arm, combined with the stretch of the torso and the thrust of the right leg, to throw the grenade.

When the right arm swings the grenade forward at an angle of about  $45^\circ$  (with the horizontal plane), release the grenade.

Simultaneously, rotate the body to face the target.

The left arm brings the rifle back for balance and safety.

The right foot steps forward with the momentum.

The right hand holds the rifle and continues to advance, shoot, or throw another grenade.

Points to Note:

- When throwing, coordinate the feet, hands, and the stretch of the torso.
- When swinging the grenade forward, keep the arm at a natural curve and slack

### ***2.2.2 Practical Grenade Throwing Drill***

The Thrower (Trainee):

At the ready position: Check the grenade, AK submachine gun or CKC rifle, and wear equipment.

Upon hearing the command "Advance": Quickly take the rifle and move to the throwing position.

Upon hearing the command "Target Target Plate 10, Stand, Prepare to Throw": Perform the preparation movement.

Upon hearing the command "Throw": Throw 1 trial grenade at the target. Then throw the second grenade (for scoring).

After throwing, listen to the announcement of the result.

Upon hearing the command "Rear", "Right", "Left", "Turn": Perform the turning movement and move back to the designated position.

The Server (Assistant):

The server's task is to observe the grenade's landing point, report the throwing result, and retrieve the grenade to the starting position.

The throwing result must be reported accurately based on the grenade's landing point

Upon hearing the command "Rear", "Right", "Left", "Turn": Perform the turning movement and move back to the designated position.

### ***2.2.3 Combining Technical Training, Physical Training, and Increased Inspection to Create Positive Psychology for Students***

Grenade throwing not only demands meticulousness and caution but also requires the thrower to have physical strength and courage. Therefore, the lecturer must know how to apply specialized physical training steps for students. In reality, most practical training often skips the step of physical training, which builds endurance and arm strength for throwing. This step, although not a technical element, is crucial because almost all manipulations in training and practical throwing require the force of the arm and the stretch of the torso.

To improve the quality of training, inspection and experience-sharing are essential. Regularly check students' preparation for training, their level of absorption and awareness, their discipline, and their actions during training. This serves as a basis for summarizing and evaluating the quality of training.

To foster positive psychology and mitigate negative emotions, lecturers must increase inspection. The thrower must actively practice, firmly grasp the content, be proficient in the movements, know how to learn from experience after each practice session, self-assess each practice as a check, self-create and self-regulate their mindset, master the weapon, and be patient and cautious in each throw.

## **2.3 Some Measures to Train Practical Skills in Grenade Throwing for Distance and Accuracy for Students**

### ***2.3.1 Raising Students' Awareness of the Role and Significance of Grenade Throwing Skills for Distance and Accuracy***

To enhance grenade throwing skills in the subject, it must be conducted regularly, systematically, with quality, and effectively. The foremost important issue is to effectively educate and raise the awareness and responsibility of the subject regarding the position, role, and importance of improving grenade throwing skills for students. Correct awareness of the position and role of these skills is the basis for elevating the responsibility of the subject conducting the improvement of grenade throwing skills for students. This is a long-term, continuous process with the participation of the pedagogical force.

To increase the subject's awareness of the position and role of improving grenade throwing skills for students, focus on the following core contents:

Using theoretical and practical foundations, lecturers must educate, propagandize, and critically combat misconceptions to ensure everyone correctly understands the position and role of grenade throwing skills, overcoming distorted and erroneous perceptions.

Aim for consensus in the perception of practical skills in the NDS subject, thereby contributing to building an increasingly strong All-people National Defense and People's Security posture.

Enable students to enhance their knowledge, grasp the Directives, Resolutions, and viewpoints of the Party regarding propaganda and mobilization in general, and grenade throwing skills in particular.

Lecturers need to clearly recognize that improving the quality of teaching grenade throwing content is a need and duty for every officer and lecturer, and a responsibility for students. Lecturers, when conducting training, must thoroughly prepare lectures, teaching aids, technical means, and especially an appropriate method of transmission

### ***2.3.2 Training Students' Practical Skills in Grenade Throwing for Distance and Accuracy at the Training Ground***

To train grenade throwing skills for students, theory must be combined with practice. Lecturers need to clarify the grenade's operating principle, analyze the throwing postures, guide the safe throwing process from pulling the pin to throwing and target selection. Students should practice throwing without a grenade to become familiar with the movement, train arm velocity, and coordinate body parts. The lecturer observes and corrects wrong movements so students master the technique.

Build a mechanism to encourage self-study, self-training, and on-site self-improvement for the faculty to enhance their professional level. Effectively manage the planning, arrangement of lecturers, and build a balanced structure among the different contents. Increase training and fostering, organize regular courses on teaching methods and knowledge updates.

### ***2.3.3 Innovating Teaching and Training Methods to Promote Students' Positivity and Proactivity***

Innovating practical teaching methods is integral to education, helping students apply theory to reality and develop necessary skills. Grenade throwing skill is part of students' learning competence, formed, consolidated, and developed through the teaching-learning process. Diversifying the forms of grenade throwing skill training in the NDS subject allows students to flexibly and creatively apply theoretical knowledge to specific skill training forms, thereby improving their grenade throwing level and skill.

To improve the quality of training, focus on the following basic forms:

**Assigning Tasks Combined with Encouraging Students to Actively Participate in Grenade Throwing Skill Training:** This is a basic training method suitable for students' learning and training conditions. The goal is to help students consolidate and expand their knowledge, form positivity, proactivity, and creativity, while mastering skills such as observation, using weapons and equipment, training, and commanding.

**Establishing Study and Training Teams/Groups to Mobilize and Encourage Student Participation:** This method contributes to training and enhancing students' grenade throwing skills. These study groups should gather positive, enthusiastic students as the core, while attracting and helping less active students with limited practical ability.

### ***2.3.4 Guiding Students' Practical Grenade Throwing***

**Preparation of Facilities:** Continue investing in upgrading facilities, equipment, and improving the training grounds to serve teaching activities in a modernized direction.

**Guiding Students' Practical Grenade Throwing:** Organizing guidance for students to practice grenade throwing is an important form that helps train students' grenade throwing skills comprehensively and systematically to achieve the best results. To promote the role of this form, focus on the following steps:

- Step 1: Orient the basic skills of the grenade throwing lesson, guide students to study documents and textbooks, closely adhering to the lesson's objectives and curriculum.
- Step 2: Guide students on how to self-study and proceed with self-training of the throwing posture and movements during class hours.
- Step 3: Guide students to prepare the means and tools for the training process.
- Step 4: Inspect the preparation work before proceeding with the training.
- Step 5: Organize students to train their grenade throwing skills through practical sessions.
- Step 6: Evaluate practical results and draw lessons learned

### ***2.3.5 Increasing the Application of Supporting Equipment in Practical Skills Training***

Increasing equipment is a continuous process that will bring positive and sustainable changes for learners. To improve teaching effectiveness and quality, it is necessary to increase and ensure both the quantity and quality of facilities, weapons, equipment, and teaching aids (PTDH) to meet the teaching needs of lecturers and the learning and training needs of students. Currently, the department has training grounds, but they do not yet meet the requirements for subject training, necessitating a separate area with sufficient conditions to organize training for students on grenade throwing techniques.

### 3. Conclusion

Training students' practical skills in grenade throwing in NDS teaching is a vital content that helps students gain awareness, understanding, and firmly grasp the process, measures, and methods of training. This includes continuously instilling and raising awareness, and promoting the role of practical skills training for students. To train students' practical skills in grenade throwing, numerous measures must be implemented, such as: raising students' awareness of the role and significance of grenade throwing skills, training students' practical skills in grenade throwing, innovating teaching and training methods to promote students' positivity and proactivity, and increasing the application of supporting equipment in practical skills training.

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### Conflict of Interest Statement

The author declares that there is no conflict of interest regarding the publication of this study.

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