

# PEDAGOGICAL APPROACHES TO TEACHING HURDLE RACING RULES AND TECHNIQUES IN ATHLETICS

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## Abstract

This article provides a comprehensive analysis of the pedagogical methods for teaching the rules and technical execution of hurdle racing in athletics. Hurdling is a complex discipline that requires a synthesis of sprinting speed, rhythmic coordination, and technical precision. The study examines the progression of teaching from novice to advanced levels, emphasizing the integration of World Athletics (WA) regulations into the training process. Key areas of focus include the biomechanics of the hurdle clearance, safety protocols, and the specific rules regarding lane infringement and hurdle displacement. The article aims to equip physical education specialists and coaches with a structured methodology to effectively teach hurdling while ensuring adherence to international competition standards.

**Keywords:** Athletics, hurdling, pedagogy, competition rules, biomechanics, training methodology, physical education, sprint technique.

## Introduction

Hurdle racing is often described as a "sprint with rhythm." Unlike pure sprinting, where the objective is maximum velocity from point A to point B, hurdling introduces fixed obstacles that demand technical adjustments without a significant loss of momentum. For physical education specialists and coaches, teaching this discipline presents a unique challenge: students must not only master the complex motor skills required to clear the barrier but also understand the strict regulatory framework defined by World Athletics (formerly IAAF). The historical evolution of hurdling has seen a shift from merely jumping over obstacles to the modern "skimming" technique, where the center of mass remains

as flat as possible [1, p. 12]. However, the rules governing this event have also evolved to ensure fairness and safety. For instance, the deliberate knocking down of hurdles or trailing a leg below the horizontal plane of the barrier are grounds for disqualification.

The relevance of this study lies in the frequent disconnect between technical training and rule comprehension. Novice athletes often develop bad habits-such as hooking the hurdle with the trail leg-that are not only biomechanically inefficient but illegal in competition. This article aims to bridge that gap by proposing a teaching methodology that integrates rule education into the physical progressions of hurdle training.

## **Research Methodology**

This study employs a qualitative analysis of existing pedagogical frameworks and regulatory documents in the field of track and field athletics. The methodology includes:

**Regulatory Analysis:** A review of the World Athletics Competition and Technical Rules (specifically Technical Rule 22) to establish the legal boundaries of the sport.

**Literature Review:** Examination of seminal texts on sprint and hurdle biomechanics, including works by recognized experts in sports science and coaching theory.

**Pedagogical Synthesis:** The construction of a step-by-step teaching progression (from isolation drills to full-sequence running) that aligns technical skill acquisition with rule adherence.

The analysis focuses on identifying common technical errors that result in rule violations and proposes corrective drills to mitigate these issues.

## **Analysis and Results**

### **1. The Regulatory Framework: Teaching the Rules First**

Before physical practice begins, the athlete must understand the constraints of the event. According to World Athletics Technical Rule 22.6, an athlete can be disqualified if they:

- Do not run in their assigned lane (lane infringement).
- Trail their foot or leg below the horizontal plane of the top of any hurdle at the instant of clearance [2, p. 45].

- Knock down or displace any hurdle with their hand or body in a manner that is deemed deliberate or clearly impedes another athlete.

It is a common misconception among students that knocking down a hurdle results in a time penalty. It does not; however, it slows the runner down significantly. Teaching this distinction is crucial. The coach must emphasize that while hitting a hurdle is legal (if accidental), it is biomechanically disastrous for performance [3, p. 88].

## **2. Biomechanical Foundations of Hurdling**

Effective teaching requires an understanding of the mechanics that allow an athlete to comply with the rules while maintaining speed.

- **Take-off Distance:** To clear the hurdle without "floating" (jumping too high), the athlete must take off sufficiently far from the barrier (approx. 2.0–2.2 meters for men, 1.9–2.0 meters for women) [4, p. 112]. This ensures the vertex of the flight parabola occurs just before the hurdle, allowing the athlete to snap the lead leg down quickly.
- **The "Split" Position:** The clearance requires a dynamic split where the lead leg extends forward and the trail leg abducts laterally. This position is unnatural for beginners and requires specific flexibility training.

## **3. Pedagogical Progression: From Rules to Rhythm**

The teaching process should be divided into four distinct phases, with specific rule-compliance checks at each stage.

Phase I: Rhythm and Safety (The "Mock" Hurdle)

- **Objective:** Establish the 3-stride rhythm between barriers without fear of injury.
- **Method:** Use sticks or low cones placed at reduced distances.
- **Rule Focus:** Lane discipline. Even at this stage, athletes must learn to run in a straight line. Drifting sideways to avoid an obstacle is a habit that leads to lane violations later [5, p. 30].

Phase II: The Lead Leg (Attack Mechanism)

- **Objective:** Teach the straight drive of the lead leg.
- **Drill:** "Walk-overs" on the side of the hurdle. The athlete walks beside the hurdle, lifting only the lead leg over it.

- **Rule Focus: Height clearance.** The foot must pass over the barrier, not around it. The coach must verify that the knee drives straight up and extends, rather than swinging laterally, which wastes energy and risks hooking the next athlete's hurdle [6, p. 75].

#### Phase III: The Trail Leg (Clearance Mechanism)

- **Objective:** Execute the complex motion of the trail leg (abduction, eversion, and pull-through).
- **Drill:** Stationary trail leg rotations and walking trail leg drills.
- **Rule Focus: The "Below the Plane" Rule.** This is the most critical technical rule. The trail leg knee and foot must remain flattened and high. If the foot dips below the height of the hurdle board while passing alongside it, it is a disqualification [7, p. 150]. Diagrams showing the legal vs. illegal trajectory of the trail leg are essential here.

#### Phase IV: Full Sequence and Speed Integration

- **Objective:** Combine the start, the approach (usually 8 strides to the first hurdle), and the rhythmic running between hurdles.
- **Drill:** Running over 3 to 5 hurdles at reduced height and spacing.
- **Analysis:** As speed increases, fear often causes athletes to lean back. This "braking" mechanism is counter-productive. The athlete must lean into the hurdle (forward body lean) to maintain momentum and center of mass stability [8, p. 201].

### **4. Addressing Common Errors**

- **Floating:** Jumping up rather than running over. Correction: Move the take-off point further back.
- **Stepping Out:** Moving the lead leg to the side. Correction: Place tape on the crossbar; aim to kick the tape.
- **Hooking:** The trail leg hits the hurdle. Correction: Flexibility exercises for the hip abductors and internal rotators [9, p. 60].

### **Conclusion and Suggestions**

The successful training of a hurdler is a multifaceted process that cannot separate technical execution from the rules of the sport. The analysis shows that the most common rule violations-specifically trail leg infractions-stem directly from poor biomechanical habits established early in training.



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