

Athletics Assignment – The Long Jump

All Records - Long Jump - Men

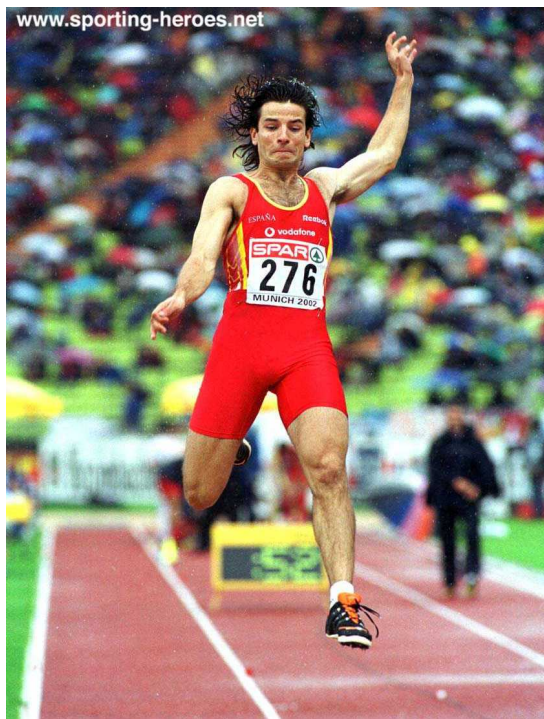
World Record

Performance	Wind	Athlete	DOB	Nat	Place	Date
8.95	0.3	Mike Powell	11/10/1963	USA	Tokyo	30 08 1991

World Leading 2003

Performance	Wind	Athlete	DOB	Nat	Place	Date
8.53	1.3	Yago Lamela	7/24/1977	ESP	Castellón	19 08 2003

www.iaaf.org – 24/10/2003



www.sportingheroes.net – 24/10/2003,

Shown above is Spanish Long Jumper, Yago Lamela. Who recorded 8.53metres, which was the best jump of 2003, set in Castellon, Spain (August).

General Rules for the Long Jump

1. Always start behind the takeoff line.
2. The best of three non-consecutive jumps will be marked as the final score.
3. Measure the distance of the jump from the takeoff line / board to the closest impression made in the sand by any part of one's body.
4. Exit pit from the sides or rear, walking back toward the runway and crossing over the takeoff line will result in a foul.
5. Running: Athlete must be able to jump at least 1M, the minimum distance between the toe board and sand pit.
6. Standing: Athlete must use both feet on the take-off.

No part of your body is allowed to touch the ground between the takeoff line and the sand

Personally I don't have a great deal of experience at the Long Jump, but I felt that the event best met my attributes as well as my body's physical state due to multiple injuries that I have received during the past two years.

I decided to practice the event with my current knowledge of techniques involved in jumping. I received a few pointers from the coaches that helped. I felt that if I practised the event in the way that I knew how to, I would then be able to correct my performance using video analysis, and I would be able to understand what is going wrong and then make comparisons to the 'perfect technique'.

I completed several jumps, which were performed in front of a camera, and my best was 5.25metres, obviously compared to the world record it's much lower. My personal best was achieved when I was 17 years old, at the mid-wilts schools area championships and I achieved 5.56metres. After analysing my jumps using video analysis, I was able to make a few points regarding my technique. My jump is quite similar to the 'stride' technique but could be adapted to the 'Box Hang' technique: 'The hang technique involves putting the body into an elongated position in order to slow rotation. This is achieved by extending the arms and legs in flight.' www.athleticslinks.com/trainljump.html – Jonathan Mulkeen, 24/10/2003. The technique is shown below:



My jump technique compared to the 'Box Hang' & 'Stride' technique is shown as follows:

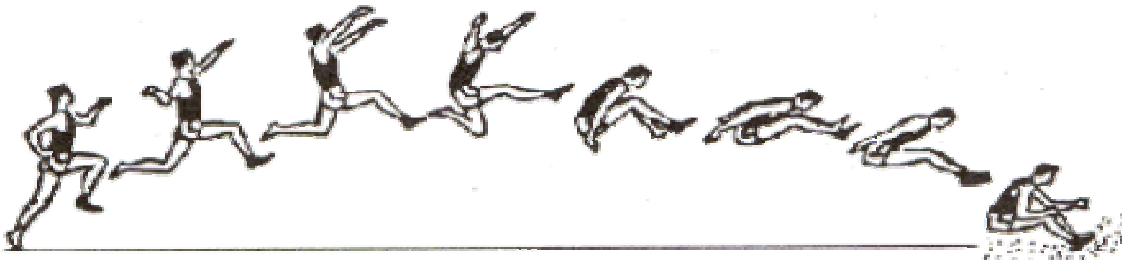
My jump –

Box Hang –

Stride –

As you can see my jump was significantly lower, as I do generate enough aggression and speed towards the board but my spring and air position are my main faults. I need to develop the 'hang' in the air, so that I can get more distance from my jump. I am very happy with my approach to the board in terms of speed and correct jumping foot. It is from the takeoff that my technique starts to deteriorate.

Looking at my technique, the jump style is very similar to the 'Stride Jump'. This style of jump is where the athlete maintains the take off position for as long as possible and only as the athlete comes into land does the take off leg join the free leg for a good landing position.

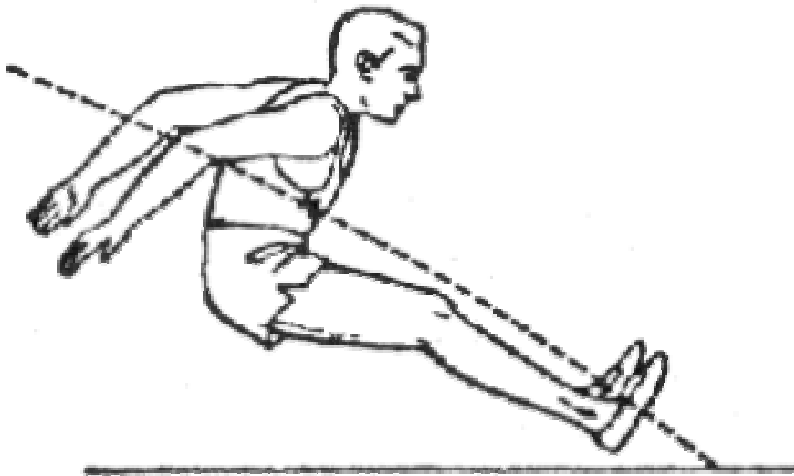


www.brianmac.demon.co.uk – 24/10/2003

I felt that my posture wasn't maintained throughout the jump, as in the air my body position tilted sideways, and I was maybe because my take off wasn't completely horizontal, which you need to maintain/create velocity. My push off from the board doesn't do justice to my approach to the board, which I feel is good. I need to consider certain factors about my push off from the board:

- Should be in a forward and up direction. The jumper should move past the board as takeoff occurs.
- Should feature a powerful, forward and upward swing of the free leg. The hip should be involved in this movement.
- Should be complete and unhurried.
- Proper blocking involves stopping the swinging of the arms and free leg at the instant the jumper leaves the ground.
www.athleticslinks.com/trainjump.html – Jonathan Mulkeen 2002,
 24/10/2003

I also noted in performance that my landing was affecting the distance of my jump because I was jumping with one leg in front instead of two. So my back leg was hitting the ground first, approximately 30-40cms behind my front leg. During the landing my aims are to get the heels as far away from the take off board as is possible. The ideal landing position is shown in the diagram below where the dotted line represents the projected flight path of the body's centre of gravity. The heels will need to land just before the projected flight path to ensure the athlete does not fall back into the sand.



www.brianmac.demon.co.uk – 24/10/2003

So in order to achieve a good performance level and improve technical efficiency in Long Jump, I would need to undertake a programme of developmental drills & practices such as:

- Short sprinting and acceleration work.
- Repetitive jumps over cones, hurdles, etc., with varying numbers of steps between obstacles.
- Jumps from elevated surfaces (ramps, etc.) to increase flight time and improve flight mechanics.
- Standing long jumps for improving landings.
- Runway rehearsal.
- Takeoffs and jumps from short approaches.

www.athleticslinks.com/trainljump.html – Jonathan Mulkeen 2002, 24/10/2003

My technique requires ‘beginner’ level drills & practices so that I can improve because if the drills/practices were too complex I don’t think that it would benefit me considering I’m relatively inexperienced. Drills & Practices that I would undertake are as follows:

Forward Height

Reps: 10-12 jumps

Purpose

- Develop height on jump
- Develop tall body position during jump

Steps

1. Place string or light rope across pit about 10 feet from takeoff board
2. Take Hips Tall position, begin short approach
3. Run toward pit with moderate, controlled speed
4. Hit board driving up and out beyond marker
5. Perform hitch kick or hang using arm action in air and land into pit

Points of Emphasis: Maintain tall body position in flight

When to Use: Beginner jumpers

Cross the Brook

Reps: 10-12 jumps

Purpose

- Develops jumping and falling forward
- Develop tall body position during jump

Steps

1. Place two ropes on ground about shoulder width apart, forming a "brook"
2. Jump from one side of the brook to the other.
3. Space ropes farther apart to work on hopping distance.

Points of Emphasis: Powerful drive from legs

When to Use: Beginner jumpers, technique work

Circle Jumping

Reps: 10-12 jumps

Purpose

- Develops powerful, explosive leg action

Steps

1. Place a series of hoops, etc. on ground
2. Hop or bound from hoop to hoop
3. Initially place hoops close to each other, then set them progressively farther apart to demand long reaching strides and explosive leg action
4. Use a forward and upward swing of the arms to help each jump

Points of Emphasis: Good arm action

When to Use: Beginner jumpers, technique work

Plyometric Hops (or Bounds) over Low Obstacles *Reps:* 2 x 5 obstacles

Purpose

- Develops powerful, explosive leg action
- Develop spring in legs

Steps

1. Create and place five obstacles one meter apart
2. Hop or bound over the obstacles
3. Land and immediately hop or bound over next obstacle
4. Use arms to obtain height and distance over obstacles

Points of Emphasis: Good arm action, Strong knee drive

When to Use: Technique work

Pop Ups

Reps: 10-12 jumps

Purpose

- Develop hitch kick and arm action in air
- Develop height on jump

Steps

1. Place hurdle or string or light rope across pit about 5 feet from takeoff board
2. Take Hips Tall position and begin short approach (5-7 strides)
3. Run toward pit with moderate, controlled speed
4. Hit board driving up and out over marker
5. Perform hitch kick and arm action in air and land into pit

Points of Emphasis: Athlete can take off at mark closer to pit if needed, Athlete can Step onto low box to help create height, Maintain tall body position in flight

When to Use: Beginning of workout; Beginner jumpers

References:

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