

Angle in – Angle out

Triple Jumping

Small – Bigger – BIGGEST

Nathan Taylor – Cornell University

USTFCCCA - 2012

- You came to this talk looking for an answer to some question(s) about the Triple Jump.
- Take a minute and write down 2 questions.
- Hopefully I can answer some of the questions.

JL Seagull.....

- Disclaimer:

Don't know if it's right

This is what I see when I watch it done

It's a ZEN thing

- Know what you are looking at
- Watch the jump.
- See the jump.
- Be the jump.
- **Feel it from the inside out.**

<http://www.youtube.com/watch?v=z35QkFI2tyU&feature=related> (compilation)

<http://www.youtube.com/watch?v=d75syqfhUqM> (Women)

Getting to the board the right way

- High velocities are important but put a premium on accuracy and strength and technique parameters
- Proper Drive phase mechanics and acceleration patterning create a maximum/repeatable stride pattern

<http://www.youtube.com/watch?v=hAC1qLiJSA8> (Johnathan Edwards)

- Posture, balance and mobility are keys to maximizing proper take-off mechanics

Note: After the run - Hop is 1st and most critical component. Analyze your athletes to determine most coordinated leg and hop on that one.

- Premium on timing of contacts – Most athletes have a side that works and one that doesn't.
- Important implications for greater bi-lateral training/jumping.

<http://www.youtube.com/watch?v=KrVRyNfg-oU&feature=related> (Edwards 18.43)

Angle in - Hop Phase

- Runway speed influences vertical impulse requirements. Slow, but powerful jumpers can have bigger angles into take off and thus bigger angles out to flight phase.
- But, this requires significantly more strength and perfected ground contact mechanics.

Angle out – Hop Phase

- Proper arm movements have large influence on creating long take off leg, bigger dynamic stretch reflex and subsequent angles.
- Maintaining excellent posture important for generating maximal forces

<http://www.youtube.com/watch?v=vfAITGsoQXA> (Christian Taylor, Worlds) :42-50

Angle In – Step Phase

- Slower speeds into step landing allow for greater angles in to maximize useable height in jump phase
- Sweeping arms back and pressing heel out creates opportunity for maximum extension and negative foot speed before contact.
- Posture and head position critical here

- **Cornell TJ stats:**

-

<u>Athlete(wgt)</u>	<u>HS PR</u>	<u>PR</u>	<u>30 fly (a)</u>	<u>30 stand(h)</u>	<u>squat PR</u>	<u>Clean PR</u>
• Pollack(172)	46'3	51'8	3.25	3.78	435	265
• Kaune(162)	46'8	50'2	3.17	3.76	335	230
• Ofori-Ansah(153)*	45'8	50'8*	3.32	3.86	285	185
• Taylor(162)	43'7	53'7	3.15	3.88	385	255
• Halim(171)	44'8	54'10	3.22	3.77	425	270
• Gadson(182)	46'2	50'0	3.30	3.85	500	316
• Teixeira(167)	44'9	51'5	3.23	3.70	475	308
• Jones(168)	50'2	52'0	3.35	3.84	465	316
• Scott(189)	46'4	50'10*	3.38	3.81	415	250
•						
• Averages:	45'10	51'10	3.26	3.80	434	276

Developing capacities

- Strength
- Speed
- General Technique
- Refining Technique at HIGH SPEEDS
 - This is the tough one. Hit or miss leads to OJW's
 - One Jump Wonders – or whoa, that was pretty good. How'd that happened?

Increasing speed parameters

- We know Triple Jumping is like a car accident.
- We know a longer run-up increases speed.
- We know it's hard to get really psyched in practice.

- Develop drills and exercises that focus on
 - 1) Posture
 - 2) Big front side mechanics
 - 3) Fast – down and pulling activity

It's all about pulling back

It's not about pushing off

Challenge

- There's no good way to full run jump in practice so how would you simulate ground contact speeds in practice?

- Muhammad Halim –

<http://www.youtube.com/watch?v=2mnlqBjl74I> (Muhammad)

- Hasheem Halim – ie. Superman?

<http://www.youtube.com/watch?v=J-ISvHCgHvc> (Hasheem)

- How about this guy?

<http://www.youtube.com/watch?feature=endscreen&v=es9rTuUb1-w&NR=1> (Hurdle fun)

- Here's how I've solved this problem
- Over-speed or assisted bounding.
 - The contacts are very fast based on the run in distance/speed
 - Places a higher premium on great technique
 - Different, Challenging ,Fun, Exciting

- <http://www.youtube.com/watch?v=hAC1qLiJSA8> (Johnathan Edwards)
- <http://www.youtube.com/watch?v=KrVRyNfg-oU&feature=related> (Edwards 18.43)
- <http://www.youtube.com/watch?v=z35QkFl2tyU&feature=related> (compilation)
- <http://www.youtube.com/watch?feature=endscreen&v=es9rTuUb1-w&NR=1> (Hurdle fun)
- <http://www.youtube.com/watch?v=J-ISvHCgHvc> (Hasheem)
- <http://www.youtube.com/watch?v=vfAITGsoQXA> (Christian Taylor, Worlds) :42-50
- <http://www.youtube.com/watch?v=LfhnPDx1ly0&feature=related> (El Sheryf) 58-1:08
- <http://www.youtube.com/watch?v=d75syqfhUqM> (Women)
- 1:00- 1:08, 4:00-4:20, 5:05- 5:20, 7:50-8:00, 8:28-8:48
- http://www.youtube.com/watch?v=STsv-dQ_DQ0 (Games)
- :45-1:20
- <http://www.youtube.com/watch?v=2mnlgbJl74I> (Muhammad)