## Pole Vault Approach Speed and Position Drills

## Speed

- 1) Speed is the number one limiting factor for vaulters
  - a. Fast people are strong for their weight and usually more balanced athletes
    - i. Don't discourage kids from vaulting- encourage them to run
    - ii. Vaulters should do sprint intervals weekly
    - iii. Conditioning is going to be a large factor in success of jump sessions
  - b. Speed plus coordination
    - i. Poor sprinting form will be accentuated with a pole on the runway
    - ii. Must be able to adjust speed, tempo: Flying 10s, 20s, 30s
    - iii. Coordination of the pole drop at walking speed working to sprint speed
    - iv. Pole runs in gym or on track in addition to on the runway are important
  - c. Speed plus posture
    - i. Head tall and neutral
    - ii. Shoulders tall but relaxed
    - iii. Hips tall throughout run
    - iv. Think foot falls pushing hips up and forward
  - d. Break the run down into phases
    - 1. Consistent start- Rocker step is easiest
      - 2. Drive Phase
        - a. Patience is key, it's not a race
        - b. Power phase
        - c. Push the runway back, push off the back wall, similar cues emphasizing longer foot contact on the runway, slight forward lean
      - 3. Build Posture and Stride- Speed plus posture section
      - 4. Increase Turnover
        - a. Emphasize during pop-ups
    - 5. Gathering Step- Do not drop hip height, do not drive last knee
    - Jump- Use cues to describe the angle, ie jumping over the pit. Emphasize getting past the box, and the takeoff spot is not our goal, the goal is to carry our speed through the vault.
      - a. Emphasize during pop-ups
    - 7. BREATHE AND COUNT STEPS

- 8. Put all together to find ideal number of steps for your vaulter, what run length optimizes their speed at takeoff
- e. Speed plus pole progression
  - i. Pole should start high carry 5 steps (lefts) out or farther
  - ii. Pole should start low carry 4 steps out or closer
  - iii. Pole moves toward plant gradually starting at about 4 steps from the box
  - iv. Sprint drills with low pole carry- tip of pole at eye level or lower
  - v. Pole carries and plant on track/gym >no target>towel>sliding box
  - vi. Standing pole progression-slow
    - 1. Pole at parallel to ground, top hand hip height, drive knee up
    - 2. Drive knee goes down, top hand goes to ear, tip drops to approximately 1 foot off ground
    - 3. Tip goes to ground as top hand goes above head
    - 4. Top hand extends as or slightly before takeoff foot steps
    - 5. Work to walking, jogging, running progressions
- f. Teach vaulters to listen for rhythm and "pop"
  - i. Coaches should listen for rhythm of footfalls
  - ii. Last two strides should have pop, putting force into runway, and accelerated turnover
  - iii. Take-off pops and stretch
  - iv. Do take-off pops, then catch step for three step pop-ups
  - v. Pop-ups now with shorter last step and more "pop"

## Strength

- 2) Strength is the number 2 limiting factor for vaulters
  - a. Pole vault positions or phases require advanced strength to weight ratio to hit/hold
  - b. Strength plus muscle memory
  - c. At a minimum
    - i. Bar routines on pull-up bar
    - ii. Rope climb inversions
    - iii. Abdominal/core/balance
    - iv. Should develop a functional weight program

## Drills

1) Starting from the end and working backwards/weather factors

- a. Hollow crossbar clearance- reinforces body position going over the bar
- b. Handstand pikes over bungee- reinforces body position, builds strength and coordination
- c. PVC inversions, Bar Bubkas: I Position
  - i. Drop shoulders
  - ii. Neutral Head
  - iii. Keep hands close to body
  - iv. Drive heals not toes
- d. Standing turn with stubby, Seated with pole on floor: Bucket Position
  - i. pole to shin
  - ii. Head neutral, move shoulders back while turning 90 degrees, hands close to body
  - iii. Pull through turning 90 degrees again, hands above head
- e. Seated PVC, pole drills, med ball throws: Chair Position
  - i. Keeping torso upright
  - ii. Applying force into the pole with long arms
  - iii. Core strength and force for chair position
  - iv. Neutral Head or Head forward
- f. Swing Drills on bar or laying: C Position to Bow and Arrow to Chair
  - i. Emphasize hip rotation and torso perpendicular to the ground, resist using momentum
  - ii. Neutral Head or Head Forward
  - iii. Emphasize dorsiflexion of feet
- g. PVC Plant Drills: C Position and "Moving V"
  - i. Easy to bend into position but still builds strength
  - ii. Builds shoulder stretch
  - iii. Push the left and steer the pole
  - iv. Head Neatral or Head Forward
  - v. Maintain torso perpendicular to runway
  - vi. Top hand pressure forward
  - vii. Hartwigs' "Moving V"
- h. Wall Plants, Box plants: C Position and "Moving V"
  - i. Use light pole for vaulter, smallest poles you have
  - ii. Should be able to retain vertical posture
  - iii. Start of the "Moving V"
  - iv. Should be able to generate significant bend with light pole