

2014 West Coast SuperClinic – Kathleen Raske Coaching the 100/110m Hurdles

Coaching the 100/110m Hurdles

West Coast SuperClinic
February 2014

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INTRODUCTION

- Overview of the 100/110m Hurdle race:
 - Know your parameters!
 - Perfect planning almost makes perfect! (80%-20% rule)
 - Coach the person first, the athlete second!



TALENT IDENTIFICATION

- Know what to look for in a potential hurdler....



TALENT IDENTIFICATION

- Body Type
- Multi sport background (esp. gymnastics)
- Speed
- Mentality
- Strength
- Skill/Coordination (Rhythm)



TALENT IDENTIFICATION

- Use of testing:
 - 30m Fly
 - 30m Stand
 - Over Head Back Shot
 - Between Legs Forward Shot
 - Standing Triple Jump
 - Standing Long Jump
 - Max Jones Quad
 - Speed Bounds



TALENT IDENTIFICATION

- Convert your best sprinter!!!
- Take 100m/200m sprinter for short hurdle race
- Take 400m sprinter for long hurdle race



BIOMOTOR ABILITIES

- THE 5 “S’s”!

- Speed
- Strength
- Skill
- Stamina
- Suppleness



COMMON PROBLEMS OF THE YOUTH HURDLER:

- Underdeveloped biomotor abilities
- Lack of take-off mechanics
- Lack of rhythm
- Mental tenacity
- Young training age
- Inability to apply force (lack of power)



TECHNICAL CONSIDERATIONS

- The Start & Acceleration.....

- ✓ sound technique
- ✓ “push” mechanics
- ✓ 8 step approach
- ✓ only one chance to accelerate
- ✓ coaching cues



TECHNICAL CONSIDERATIONS

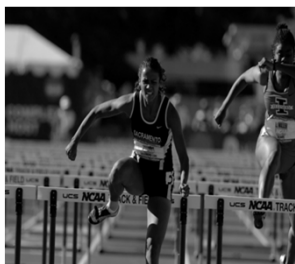
- HURDLING.....

- Sprint Mechanics
- Prep for take-off
- Take-off
- Clearance
- Landing



TECHNICAL CONSIDERATIONS

- Sprint between
- 3-step rhythm
- Apply force (use the ground)
- Sprint through not to!
- Rehearsed finish



COACHING & TEACHING STRATEGIES

- 11 separate accelerations
- The race in 3 parts:
 1. Accel through 4H
 2. Stabilization of rhythm 4H-7H
 3. Rhythm endurance 8H-10H



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COACHING & TEACHING STRATEGIES

- TAKE-OFF MECHANICS
 - Use of cues
 - Hurdle entry determines hurdle exit
 - Focus is on using the ground and applying force at T-O
 - Most time spent on this aspect



USE OF "DISCOUNTED" HURDLES FOR ACCELERATION, SPEED, AND RYTHYM DEVELOPMENT

"Discounted" Hurdles = Refers to decreased spacing between hurdles AND/OR lower hurdle heights (as opposed to regulation hurdle height and distance).

IMPROVE ACCELERATION: Teach "cutstep"

	<u>Distance to 1st Hurdle</u>	<u>Hurdle Height</u>
Men	13.22m	39"
Women	12.5m	30"
Boys	12.7m	36"
Girls	12.0m	27"-30"

ADDITIONAL STRIDES TO ACCELERATION PATTERN: Teach velocity going into and off

	<u>10-STEP Approach</u>	<u>Hurdle Height</u>
Men	16.5m	39"
Women	16.0m	30"
Boys	16.0m	36"
Girls	15.5m	27"-30"

USE OF "DISCOUNTED" HURDLES FOR ACCELERATION, SPEED, AND RYTHYM DEVELOPMENT (Con't)

STABILIZATION OF MAX VELOCITY & RYTHYM: Teach rhythmic unit and velocity

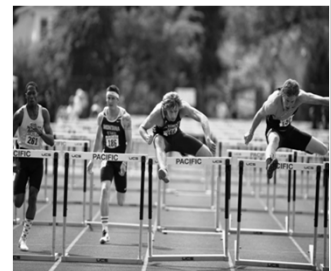
	<u>Distance between Hurdles</u>	<u>Hurdle Height</u>
Men	8.5/8.8m	39"
Women	8.0/8.3m	30"
Boys	8.3/8.8m	36"
Girls	7.9/8.3m	27"-30"

ADD ADDITIONAL STRIDES: Teach rythm endurance and velocity in late race

	<u>5-STEP Pattern between Hurdles</u>	<u>Hurdle Height</u>
Men	13.0-13.5m	39"
Women	11.5-12.0m	30"
Boys	12.5-13.0m	36"
Girls	11.0-11.5m	27"-30"

CONSIDERATIONS FOR SETTING UP THE TRAINING PROGRAM

- Know demands of event
- Periodization (trng blocks)
- Sequencing
- Teaching Progressions
- Use of Menu's
- Drills
- Circuits
- Strength/Power dev'p
- Warm Ups/Cool Downs



CONSIDERATIONS FOR SETTING UP THE TRAINING PROGRAM

- Demands of the High Hurdles: Understanding Ground-Force application
 - As G-F increases, then speed increases
 - As ground contact time decreases, then speed increases
 - What happens in air=passive / what happens on ground=active
 - A hurdler can never be too strong! Must dev'p max force/power
 - Applying max force in the right direction/right position/right place in least amt of time
- Additionally
 - Attack mentality
 - Kinesthetic Awareness (rhythm, str length, str freq, spacial)
 - Priorities include
 - Speed!
 - Acceleration!
 - Mechanics!
 - Strength/Power!
 - Flexibility!

SEQUENCING:

• Training programs should be developed and taught in a SEQUENCE and PROGRESSION (i.e. part-whole/ simple-complex/ general-specific, etc.)

• The five biomotor abilities in the annual plan should also be sequenced appropriately.

*This will produce the best results over the long haul!
Be patient!

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SEQUENCING:

FOR EXAMPLE.....THE "RULES":

SPEED: acceleration - max velocity - speed endurance

STRENGTH: general/postural- endurance- max strength- power dev'p- maintained

SKILL: stationary drills - marching drills - speed hurdling

STAMINA: ext. tempo - int. tempo - speed endurance

SUPPLENESS: ROM gradually increases w/static stretch or PNF or hip mobility, etc.

Training Program Set Up: Use of Menus

- Technical Development
 - Hurdle runs/drills, specific muscle mov't routine, sprint mechanic runs/drills
- Core strength Development
 - Abdominal circuits, med ball, weight abs, functional mov't
- Acceleration Development
 - 3point starts, harness work, multi jump/throw
- Power Development
 - Sleds, stairs, hills, plyometrics, med ball, oly lifts, Jump rope
- Speed Development
 - Build ups 150, 120, 100, 80
 - Flays 30, 40, 50, 60
- Hurdle Rhythm Development
 - Discounted work, endurance work

Training Program Examples:

Microcycle in October:

- Monday(HND)=CWU, Block progression, Block starts, Blocks over 1Hx8@30", Harnesses, Lift/core, DMR
- Tuesday(COND)=WU, Stationary H drills, A runs over 14x10, Tempo down-back-downs R20' x 5 sets: R2: Lift/core, DMR
- Wednesday(RECOVER)=Dynamic WU, H walkovers, Pillar work, static stretch, PT appt.
- Thursday(HND)=CWU, H drills, Block progression, block starts over 1H, 2H, Stairs, Lift/core DMR
- Friday(COND)=WU, H drills, Balance routine, 8x200R60", Lift/Core, DMR
- Saturday(REST)= off
- Sunday(ALT TRNG)= choice of alternative training

Microcycle in May:

- Monday(HND)=CWU, H Drill progression/ Block progression, Blocks over 1H, 2H, 3H, 11H x 3, 2 x250, Lift/core, DMR
- Tuesday(COND)=WU, jump rope, A runs over 14h hold thru 60, 16x100 R45" mechanic runs, Lift/core, DMR
- Wednesday(RECOVER)=Dynamic WU, H walkovers, Pillar work, static stretch, PT appt.
- Thursday(TECH/MND)=CWU, H drills, block starts over 1H, 2H, 3H, 4x flys, short lift/core, DMR
- Friday= Pre Meet Routine
- Saturday= Compete
- Sunday(RECOVER)= Active Recovery routine

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WORKOUTS AND DRILLS FOR THE 100m/110m HURDLES:
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"CONFIDENCE, COMPOSURE, COMPETITIVENESS!"

DRILLS: (note: many basic drills can be performed without hurdles)

Stationary/Position drills:

- a. Tap-Tap b. Posture walk c. Slant trail on H d. Wall trail e. Wall attack

Others:

- a. Step overs with 10H (single, doubles)
- b. Marching with 6-10H (lead, trail, top)
- c. Turbo Trail (side and over top)
- d. 3 or 5-step SIDE of hurdle drills (lead, trail, over top)
- e. Take-off drill #1 (run-run-bound)
- f. Take-off drill #2 (box step off)
- g. One steps (2m-3m drill) side of hurdle- lead, trail, top
- i. Quick Three step Rhythm Drill using low hurdles

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100m/110m HURDLE WORKOUT MENU:

- A. Blocks over 1st H at 12.5m [closer]
 - B. Blocks over 2H
 - C. 2,4, and 6-step approach over 3-4H discounted (acceleration)
 - D. 10-step approach over 5-8H (discounted)
 - E. Blocks over 6H (discounted using a sprinter in next open lane)
 - F. 8-step standing start over 4-5H close three step-rhythm specialization
 - G. 12H with decreased spacings (8.3 x 4, 8.1 x 4, 7.9 x 4)
 - H. 9-12H with varied spacings (8.3 x 3, 12.0m, 8.1 x 3, 12.0m, 7.9 x 3)
 - I. Turnarounds with 4H varied spacings (8.3, 8.1, 7.9)
 - J. Blocks or 10-step approach over 12H discounted (use race simulation)
 - K. Runs over baby hurdles – "quick three"
 - L. Regular Sprint 50m then hurdle 6-8H (watch out for spacing)
 - M. Blocks over 6H; 5-step; last 4H (6H+4H)
- ***** Use 24", 27", 30", 33", 36" heights or decreased spacings when appropriate.
 High School Boys Hurdle height = 39"
 High School Girls Hurdle height = 33"

NOTE:

Boys need to hurdle more at Regular hurdle heights than girls in practice setting.

LASTLY...

- Be a teacher
- Use the appropriate coaching cues
- Increase athlete knowledge (tell them why/purpose of work)
- Have patience
- Have a well developed plan (80% vs. 20%)
- Think in both annual cycles and the 4 year cycle for developing an "elite" hurdler
- Adhere to the plan
- Let the "art" unfold!