# Adaptations for Wisconsin Sprint Training Ron Johnson – Arrowhead High School <u>arrowheadtrackandfield@uwalumni.com</u> (512) 466-4567

### 1. Major differences between Texas and Wisconsin

Weather

Athletic periods – Track & Field as a PE class

Difference in rules – In Texas athletics is not considered a team sport therefore has very few rules

Shear numbers – In Houston alone there are 80-90 high schools that each have over 2000 students.

Length of season – Track usually begins after school training the first week back from Winter break and ends for most athletes with the District or Area meets mid to late April.

Most if not all meets are invitatational meets – meets can only be held on Friday or Saturdays

In Texas all coaches must be employed by the District they coach in, one exception, retired coaches. This does have positive and negative results.

# 2. What components make up Speed?

Speed, Strength, Power, Endurance, Restoration

# 3. Speed Development v. Speed Training

Speed development: High intensity – short duration, 1-2 seconds, requires small bits of training at higher velocities, includes contrast training, stride length and stride frequency drills Speed Training: % of the high intensity, training under 6 seconds with a 4-6 minute recovery. 1:25 recovery ratio, attempting to maintain s % of that top speed for a longer period of time.

# 4. General Preparation

Monday: Speed development

Tuesday: Lactate Capacity & Core

Wednesday: Technique & Tempo endurance (rest)

Thursday: Speed development

Friday: Technique & Tempo endurance & Core

### 5. The Warmup

2 lap jog

Dynamic Mobility (Captain led)

4 X 30 m strides (50-60-70%)

leg swings – 12X left – 12X right – inside – outside

4 X 30 meters accelerations (80-90-95%)

Hurdle mobility drills

# 6. Dynamic Mobility

- 1. neck rotations 2. Arm circles 3. Trunk twists 4. Hip rotations
- 5. toe in running 6. Toe out running 7. Toe cross overs
- 8. skaters 9. Side slides 10. Kioka's 11. Kioka legovers
- 12. 360s 13. Arm extended skips 14. Tuck jumps 15. Jog on toes
- 16. single arm skips 17. Double arm skips 18. Cross arm skips
- 19. tight skirts 20. Straight leg bounds 21. Clap jacks 22. A's & B's

# 7. Fast leg series

Neuromuscular recruitment – 3 reps

Begin with walk, then skip, then running

Left leg fast leg every other one

Right leg fast leg every other one

Left leg fast leg every one

Right leg fast leg every one

Alternate fast legs by the numbers (4-3-4)

4 lefts, 3 rights, 4 lefts

# 8. Shift

Shift – choreographs the stride pattern during the acceleration 4-5 reps

90cm troc use 2.5X, 2.37X, 2.40X

- 1.40% 2.45% 3.60% 4.70% 5.75% 6.78% 7.81%
- 8.88% 9.89% 10.90% 11.93% 12.95% 13.97%
- 14.99% 15.100% 16.102%

### 9. Reach

Reach – transition phase acceleration to max velocity 10m approach use 2.35X, 2.37X, 2.40X

1. 75% 2. 77.5% 3. 80% 4. 83.5% 5. 85% 6. 87.5%

7. 90% 8. 93.5% 9. 95% 10. 97.5% 11. 100% 12. 102.5% 13. 104% 14. 105%

#### 10. Drum

Drum – develops stride frequency 0.9 troc use 2.35X 80% (.8) = 1.69 meters 20 – 30m lead in lay down 6 marks 1.69m apart represents 5 strides Goal = 1.0 sec (10m/s) velocity When goal is met increase to 82% and so on.

### 11.Power Development

begin with level 1 skill and gradually go up from there, control and count foot strikes

Done as a multi jump component 2 X 6-15 reps

Level 1 – power skips for height or distance

Level 2 – low single leg hops, double leg, prancing, backwards And forwards

Level 3 – SLJ, STJ, DLB, LLRR

### 12. Power Development

Level 4 – straight leg bounds, alt bounds, LLRR bounds

Level 5 – R Hop. L Hop, RRLLRR bounds, 6 H Hops

Level 6 - Bounds for height & distance, speed hops, STJ for

Distance, SLB, Tuck jumps

Level 7 – Standing RRR, LLL, RRLL, RLRL or LRLR

Level 8 – jogging same as Level 7

Level 9 – 3 X 6H hops, R hops, L hops, 3 X 3 box with 3 hops In between, 3 X 3 box 1 hop in between, 3 X 6H

# 13. Teaching skills

- 1. Introduce skill precise cues
- 2. Demonstrate use good models and video

whole – part – whole keep brief provide different views

- 3. Practice be patient (300 hours to correct)
- 4. Provide feedback correct one error at a time

### 14. Specific Preparation

Monday: Speed

Tuesday: LAC early, GSSE, Special endurance Wednesday: technique – tempo endurance

Thursday: Speed resistance – Strength endurance

Friday: technique

### 15. **Speed**

emphasis on quality not quantity

full or near full effort over short distances between 30 and 60m. each repeat must be followed by complete recovery 1:25 recovery

exp: 30 meters 6 – 8 reps exp: 50 meters 5 – 6 reps exp: 60 meters 4 – 6 reps

alactic short speed endurance – bridge the gap between speed and speed endurance exp: 4 X 4 X 60m at 90% 3' interval 6' set rec. use to increase the volume of alactic power and work capacity

### 16. Speed Resistance & Strength Endurance

Resistance – sled pulls, inclines, ultra speed resistance (keep Resistance low so athletes can perform at around 90% of max Velocity)

Assistance - downhill, towing

Early – 3X resistance – 3X assistance – 3X normal

 $Later-Strength\ endurance-more\ than\ 9\ reps,\ 9\ sec,\ 90\ meters,$ 

3-5 min recovery

one week sleds, next week up hills, alternate

# 17. Competitive Phase

Monday: Race Modeling Tuesday: Lactate Power Wednesday: Technique

Thursday: Speed Endurance

Friday: Technique - activation potential

# 18. Race Modeling

work on improving any aspect of your race that needs improvement, finish, start etc.

starts in your Regional or Sectional or State lane draw

mental preparation prepare for everything

# 19. Speed Endurance

Alactic capacity (speed endurance)

Emphasis: work on the ability to hold 95% speed

15 to 30 seconds in duration

exp: 3-4 X 150 meters at 95 – 100% velocity

recovery ratio: 1:15 exp: 150 meter – 20sec X 15 = 300 sec

 $300 \sec/60 = 5 \min recovery$ 

exp: 3 -4 X 180 meters exp: 4 -5 X 120 meters