

Phases, Execution, Race Modeling, and Breathing Patterns

Understanding the 100m & 200m Dashes



1



Sources & Mentors

2



Sources & Mentors

3



The Science of Hurdling and Speed
Brent McFarlane




Sources & Mentors

4

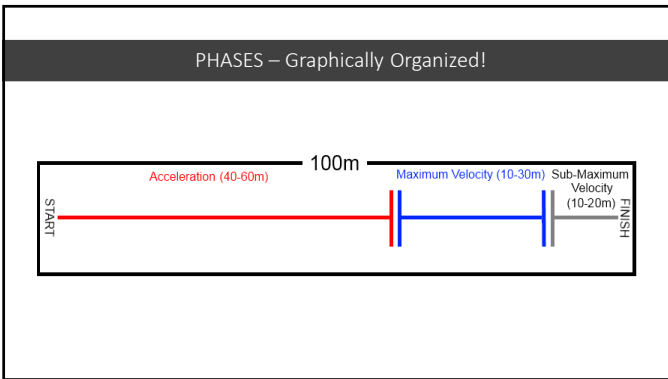


DRIVE
TRANSITION
MAXIMUM VELOCITY
DECELERATION
FINISH

Phases

5

PHASES – Graphically Organized!



100m

Acceleration (40-60m)

Maximum Velocity (10-30m)

Sub-Maximum Velocity (10-20m)

START FINISH

6

DRIVE PHASE

GOALS & CHARACTERISTICS

- Overcome Inertia
- Build Momentum
- Patient
- Full Force
- Triple Extension
- Volitional



7

WHAT'S RIGHT

- Strength
- Power Line
- Triple Extension
- Acute Shin Angles
- Long Levers
- Rear Ankle Recovery
- Block w/Frontside Arm



8




TRANSITION

9

MAXIMUM VELOCITY

CHARACTERISTICS

- Short Ground Contact Times
- Quick Impulses into Ground
- Short, Fast Levers
- Reflexive, not Volitional
- Coordination = Limiter




10

MAXIMUM VELOCITY

GOALS

- Maintain Relaxed Torso & Face
- Backside
 - Quick / Whip Recovery of Knee
 - Ankle Recovers High & Tight
- Frontside
 - Active Negative Acceleration of the Thigh
 - Ankle Dorsiflexed
 - Strike "Sweet Spot" just in front of COM



11

DECELERATION

CHARACTERISTICS

- Core Fatigue
- Postural Stability
- Longer Ground Contact Times
- Lose High Quality Coordination

GOALS

- Tight Tummy / Hot Track!



12

Finish

Timing

- Lean
- Swim

Visualization




13

RACE MODELING
Playing a Song with Your Body

Basic Blueprint Providing

- Focus (Zen Sprinting)
- Order
- Rhythm (Relaxation)
- Rest
- Template for Improvement



14

The "Hold"

Valsalva Maneuver


- Primal Response
- Air Splint
- Excites Nervous System?

Technique

- Slow exhalation over 15-20m
- Inhale at "Breath" Marks

Inhalation

- Use Momentum, Not Effort



15

0-15m	Hold	Push-Push-Push
15-20m	Breath In	transition cue to <i>Taller – Stronger</i>
20-35m	Hold	Taller-Stronger
35-40m	Breath In	transition to <i>Step-Over</i>
40-60m	Hold	Step-Over
60-65m	Breath In	transition to <i>Grab Back</i>
65-85m	Hold	Grab Back
85-90m	Breath In	transition to <i>Tight Tummy – Hot Track</i>
90-100m	Hold	Tight Tummy – Hot Track

OVERVIEW

16

Breathing Zone

5m
Inhale & Freewheel
Hold & Transition the Cue



17

TRAINING

Progressive w/Hurdle Gates – Acceleration or Max Velocity Days

- Athletes in Lanes 3 & 5
- Hurdles as Gates in Lanes 2, 4, 6
- Coach gets Hoarse at Later Stages (cue reminding!)

Indoor Emphasis

0 – 15m *Push – Push – Push* & *Breathing Technique*

Then Add: 15 – 20m Inhale & Transition to **Taller, Stronger** 20 – 35m

Then Add: 35 – 40m Inhale & Transition to **Step Over!** 40 – 60m

Outdoor Emphasis

Transitions & Holds through **Grab Back (65-85m)** and **Tight Tummy-Hot Track! (90-100m)**

Can Perform Sub-Maximally on Recover Days

18

200m Race Model

- Same as 100m through 80m
 - Beginning of the 4 x 100 Fly Zone
- Float through the Fly
- 4 In – 4 Out Breathing Pattern
- Speed Endurance
 - Hold Posture
 - Maintain Short Ground Contact Times
 - Incorporate Pattern in Practice