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- Amazing Student Athletes
4 x 100m Relay
Observations
Context: Travel Group 2012 (11 athletes):

- 9 Females
  100m
  200m
  400m
  100m Hurdles
  400m Hurdles
  4x100, 4x200, 4x400 relay
- 2 Males
  110m Hurdles
  (ltd) 400m Hurdles
Bias / Intent:

- By design, we train **every** athlete in the group for the 4x100 relay and the 200m
- We **intend to compete** every athlete in the 4x100 and the 200m
- Of the 11 athletes we travelled in 2012, 10 competed in the 4x100 and all raced 200m
- This year, 12+2 on trav sq. All will do both
Fluency:

• 100m acceleration pattern is the base pattern, from which other acc patterns vary

• So we teach it first, to give us a reference from which to better teach more subtle patterns (200, 400, 100 hur, 110 hur)

• To run the 4x100, mastery of the 100m acceleration pattern is preferred, but an ever-improving stabilization is required!
Spirit of the Event: Banzai!

- Acceleration exercise, not exchange
- Urgent
- Risk a missed pass
- Willing to fail (short term)
Structure:

• 1 x (120, 140, 140, 120) relay
• Due to the overlap of each leg, actual sprints are significantly longer than stated

• 4x200, 4x400, much closer to stated distances because the overlaps comprise a smaller percentage of the total race
Useful First Step:

- Separate the Responsibilities – Each does their job, let others do theirs
  
  - Coach responsibility
  - Outgoing Athlete responsibility
  - Incoming Athlete responsibility
Coach Responsibility:

• Teach acceleration and speed development
• Create the environment, establish rules
• Identify athlete skills and manage personnel (chemistry!)
• Set marks
• Teach exchange mechanics. Enforce mechanics
• Coordinate, observe and analyze training reps
• Set marks – Competition mark derived from aggressive training mark
• Decide exchange style: Over-hand vs. Under-hand
Outgoing Responsibility (Leader / Quarterback)

- Apply 100m fundamentals wo blks / “READ!”
- Leave on Time – Read the mark consistently from stance. No assumptions!!
- Push into Darkness / Accelerate Aggressively – Try to leave incoming runner
- Limitation: Blind
- Stay in designated half of lane
- When called, show stationary target (heel of hand)
- Close hand when baton is felt. Do not grab
- After exchange – Continue aggressive acceleration
Incoming Responsibility
(Herald / Follows lead of outgoing)

- Run in with aggression – Try to run past outgoing athlete
- Stay in designated half of lane
- Announce arrival with loud call (Hit, hot, hop, hut).
- Wait for target to appear. With eyes, find target hand
- Push pass – Look baton into target
- Run through and well past the exchange
Training Considerations

- 4 x 100 is an acceleration exercise
- Start teaching early
- Practice exchanges two times a week
- Consistent training approaches / 40m
- Intensity – 100% !!!
- Finish every pass – No quitting in zone, even on “failed” exchanges - This is where you get skilled and solve problems
- Give feedback, solicit feedback
- Variety: in zone, 4 x 60m, solo, competition style, with and without baton
4 x 60m Relay Set-Up 1
Lead Off Athlete

(Curve start mechanics, Right hand index finger baton grasp in blocks)

• 100m acceleration principles apply
Outgoing Athlete – 2 or 4
(Look inside, right hand support, left hand trigger)

• 100m acceleration principles apply, no blocks
• Athlete occupies outside half of lane
• Left foot forward, left trigger hand extends back (looking inside, under shoulder)
• Right foot forward, left trigger hand extends forward (looking inside, under armpit)
• Read “upside down”
• Receive with left hand, pass with left hand
Outgoing Athlete – 3
(Look outside, left hand support, right hand trigger)

- 100m acceleration principles apply, no blocks
- Highest degree of difficulty – Most skilled
- Athlete occupies inside half of lane
- Left foot forward, right trigger hand extends forward (looking outside, under armpit)
- Right foot forward, right trigger hand extends back (looking outside, under shoulder)
- Read “upside down”
- Receive with right hand, pass with right hand
Personnel Placement

(Seek, establish and retain “chemistry”)

- May or MAY NOT run our four fastest athletes
- Competitors
- Skill / Patience / Consistent reading
- *Responsibility and accountability
- Degree of difficulty:
  - 3: 140m, receive blind(fr best?), pass w sight, curve accel wo blk
  - 2: 140m, receive blind, pass sighted, straight accel wo blk
  - 4: 120m, receive blind, straight accel wo blk
  - 1: 120m, pass w sight, curve accel with blocks
Exchange Zone

- 10m acceleration zone
- 20m exchange zone
- Ideal exchange = 15-18m deep in zone
- 25-28m free run into zone for outgoing athlete (will not feel incoming athlete for a long while). We call this ‘running into the darkness’.
Troubleshooting

• First check: did outgoing athlete leave on time?
• Second check: did outgoing athlete leave aggressively?
• Third check: did incoming athlete accelerate aggressively? (this affects quality of run in)
• Misc check:
  – Did incoming wait on target to pass? Look at target hand? Give top of baton?
  – Did outgoing give proper target? Keep hand still? Grab?
• Train a fifth athlete, compete a fifth athlete on occasion
Incoming Acceleration through Zone
Outgoing Acceleration through Zone
Combined Acceleration through Zone 1
Combined Acceleration through Zone 2
Setting the Trigger Mark
Call Push Pass
Calibrating
Exchanges 1
Exchanges 2
Exchanges 3
Exchanges 4
Exchange....Leaving On The Mark
Exchange...Barely
Exchange...Much Better!!!
Putting It All Together
Putting It All Together
Some arithmetic:

- $11.56 + 11.12 + 11.49 + 11.13 = 45.30 \ (42.36) / 2.94 \ \text{diff}$
- $4 \times 11.00 = 44.00 \ (41.50) / 2.50 \ \text{diff}$
Final Notions

• Run through the exchange. Not to the exchange.
• Can someone explain what, exactly, is a “safe pass”?
• Early convergence in zone = trouble
• Don’t miss the wisdom in “failure”