The Disciplined Development of Relays

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What is the 4 x 100?

• It is a sprint relay
• Four runners completing 100 meters each to equal a lap
• Same stagger as for the individual 400 m race
• The baton is carried by each runner and must be passed within a 20 m changeover box (usually marked by yellow lines)
• The zone extends 10 m on either side of each 100 m mark of the race.
• Another line is marked 10 m farther back, marking the earliest point at which the outgoing runner may begin (giving up to 10 m of acceleration before entering the passing zone
“The Fastest Two Minutes in Sports”

• The Kentucky Derby
  • A horse race held annually in Louisville, KY.
  • The race is a Grade 1 stakes race for three-year-old THOROUGHBREDS
  • Distance of one and a quarter miles (2 km) at Churchill Downs.
Comparison (4 x 100 vs Kentucky Derby)

- Both events are outdoors
- Both events are highly anticipated
- Both events require speed, confidence, determination, persistence
- Both events are for high stakes and require tremendous skill
- Both require communication amongst the team
Comparisons (4 x 100 vs Kentucky Derby)

- Neither race has donkeys
What are we doing?

• 1. Understand the race and it’s dynamics
• 2. Develop your personnel
• 3. Understand your personnel's capabilities
• 4. Teach the relays to your personnel (they must do it your way)
• 5. Trust your personnel and their ability to execute it your way
Mission

- Run extremely fast and continuously accelerate the baton with a cohesive group.
- There are no fast timid relays!!!
Who should be on the relay?

• Train everyone in the sprint, hurdle and jumps group for the 4 x 100 relay.
• Utilize the four best runners who can move the baton through the zone and compete at high level.
“Put me in, Coach!”

• The four best 100 meters guys may get you BEAT... Jumpers, long sprinters and hurdlers can run too!!!
• Use the best relay runners at your disposal.
Should you practice the 4 x 100?
Practicing the relay is essential to success.

• The short relay depends on your athletes ability to effectively execute your plan.
• Some people don't spend a lot of time on the relay but I would suggest some practice.
Do your job! Everyone has a purpose.

• Coach
• Incoming Runner
• Outgoing Runner
Coach

• Must teach all facets of the relay from setting marks, receiving style, lane placement, passing style and verbal communication.
• Educate, instruct, practice and execute.
Incoming Runner

• Confidently approach the exchange zone with managed aggression
• Stay on your side of the lane
• Verbal command
• See the hand
• Push the button to hand
• Run through the zone
Outgoing Runner

• Leave on time (The mark is there for a reason, use it!)
• Get out of there (you should make the incoming runner catch you)
• Stay on your side of the lane
• Give a good target (make it easy to see)
• Take the baton and exit the zone with vigor
Choosing and Organizing the Relay
Lead Off Leg (Right hand)

• Ideally a good starter, but a individual with exceptional curve running mechanics

• Must be mentally committed and have shown the physical ability to run through the zone with intensity
2\textsuperscript{nd} Leg (Left hand)

• Ideally one of the most versatile athletes who can receive and pass the baton in the left hand
• Should be one of your most balanced and coordinated athletes
• Athlete will stay on the outside of the lane
• Must be mentally committed and have shown the physical ability to run through the zone with intensity
3rd Leg (Right hand)

- This leg creates the most difficulties and should be performed by skilled and confident athletes
- Needs to be an individual with exceptional curve running mechanics
- Athlete will stay on the inside half of the lane
- Must be mentally committed and have shown the physical ability to run through the zone with intensity
Anchor Leg (Left hand)

• Runner should be confident and supremely competitive
• Must be able to manage themselves in the late stages of the race
Relay Practice Checklist
Relay Practice

• Begin instructing all facets of the event early
• Practice no more than twice a week with varying intensity
• High intensity efforts are limited and we want to achieve two positive exchanges before moving to the next zone.
• We utilize a 40 meter approach in practice to mimic race velocity
Relay Practice (cont.)

• Four (4) foot “Go” box

• Spacing of the box will change based on our ability to execute an efficient pass and overall fitness.

• We will start in tight with 24-28 and gradually move it out. We need to know what is too tight and how far we can stretch the zone comfortably.

• We never give up on a baton pass. You stay with pass no matter the circumstances. We want to make competent adjustments at a high level.
How fast can we run?
Projected relay performance equation

• The calculations I use are based on the combined total of the best performances (season or personal) of each athlete, minus 2.7 seconds.

• There are other formulas but this one has provided me with the most accurate number in relation to true performance.

• 2014 Season Best: 39.18/5th NCAA Final (10.45, 10.40, 10.25, 10.36)
  Projected performance: 38.76

• 2015 Season Best: 39.35 (10.45, 10.40, 10.25, 10.67)
  Projected performance: 39.07

• 2016 Season Best: 38.60/5th NCAA Final (10.33, 10.40, 10.25, 10.29)
  Projected performance: 38.57

• 2017 Season Best: 38.91 (10.37, 10.40, 10.25, 10.29)
  Projected performance: 38.61
Thank you