



AAi coach

INTERACTIVE COACHING



E-coaching Manual

Relays





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Foreword



This is the initial e-coaching manual in the AAI Coach Interactive Coaching project. AAI Coach is aimed at developing coaching resources across a range of event groups. This manual is focused on relays and examines the various elements involved in the event. It will assist club and school coaches to prepare teams to perform in competitive environments. Daniel Kilgallon has been instrumental in producing the manual and recruited Molly Scott, Ciara Neville, Joseph Ojewumi and Eoin Doherty to demonstrate the various aspects. Daniel and these athletes were all involved as new national relay records were recorded at the World Junior Championships in 2016.



The purpose of the e-coaching manuals is to provide support to coaches. This is achieved by providing easy access to quality coaching material. The event rules and guidelines are outlined with video links providing footage of training tips, drills and coaching points. This particular manual includes links to fourteen videos which complement the images and text. The interactive nature of the material is aimed at ensuring greater learning.



The team has worked hard to provide a suitable tool for coaches. I hope you find this to be useful and benefit from its application.

Pat Ryan

Director of Coaching & Development

Athletics Ireland





Introduction

Welcome to AAI Coach, Athletics Ireland's Interactive Coaching resource. AAI Coach e-coaching manuals provide event specific information, coaching theory together with practical coaching videos.

While complementing Athletics Ireland's coach education pathway, AAI Coach offers new and existing coaches throughout Ireland the opportunity to upskill and learn about specific event areas in the comfort of their homes and clubs.

AAi Coach e-coaching manuals are easy to navigate and accessible through PC, laptop and hand held devices.



AAi Coach Relays

This AAI Coach e-coaching manual will focus on relays, predominantly the 4 x 100 metre relay, with a focus also on the 4 x 200 metre and 4 x 400 metre relay events.

Relays offer an opportunity to develop sprinters within our clubs and schools while also providing the attraction to engage and retain fast athletes in our sport.

Relays add depth and excitement to track & field championships and offer athletes from all events the opportunity to be part of a team.

Competing in relay events creates a healthy competitive spirit and opens the door to success for athletes of all levels. While running relays is fun, there are specific skills involved that require coaching.

We at Athletics Ireland envisage clubs and schools will find AAI Coach relays beneficial and that coaches will actively promote the skills and drills outlined and demonstrated.



4 x 100 Metre Relay

- ✓ The 4 x 100 metre sprint relay challenges four athletes to carry a baton around a 400 metre track as quickly as possible.



4 x 100 Metre Relay - Exchange Zones

- ✓ The baton must be exchanged within the 20 metre exchange zone.
- ✓ There are 3 exchange zones.
- ✓ Each exchange zone has a 10 metre acceleration zone.
- ✓ The outgoing runner may start running from within this acceleration zone.
- ✓ However they cannot receive the baton within the acceleration zone.
- ✓ The ideal baton exchange will take place at the middle of the exchange zone.



4 x 100 Metre Relay - Running Order

Lead-Off Leg Runner

- ✓ Starts in blocks.
- ✓ Runs on the bend.
- ✓ Carries the baton in their right hand.
- ✓ Runs approximately 105 metres.
- ✓ Passes the baton only.
- ✓ Runs on the inside of the lane.



Second Leg Runner

- ✓ Starts in the acceleration zone.
- ✓ Runs on the straight.
- ✓ Carries the baton in their left hand.
- ✓ Runs approximately 125 metres.
- ✓ Receives and passes the baton.
- ✓ Runs on the outside of the lane.



Third Leg Runner

- ✓ Starts in the acceleration zone.
- ✓ Runs on the bend.
- ✓ Carries the baton in their right hand.
- ✓ Runs approximately 125 metres.
- ✓ Receives and passes the baton.
- ✓ Runs on the inside of the lane.



Fourth Leg Runner

- ✓ Starts in the acceleration zone.
- ✓ Runs on the straight.
- ✓ Carries the baton in their left hand.
- ✓ Runs approximately 120 metres.
- ✓ Receives the baton only.
- ✓ Runs on the outside of the lane.





4 x 100 Metre Relay - Selecting the Team



Lead-Off Leg Runner

- ✓ Experienced starter.
- ✓ Can start with the baton.
- ✓ Can hold their nerve.
- ✓ Competent bend runner.
- ✓ Ability to carry the baton in their right hand.
- ✓ 60 metre /100 metre athlete.
- ✓ Ability to stay in lane.



Second Leg Runner

- ✓ Explosive off the check-mark.
- ✓ Good timing on the check-mark.
- ✓ Fast accelerator.
- ✓ Competent on the straight.
- ✓ Ability to carry the baton in their left hand.
- ✓ 100 metre / 200 metre athlete.
- ✓ Good hands.
- ✓ Ability to stay in lane

Third Leg Runner

- ✓ Explosive off the check-mark.
- ✓ Good timing on the check-mark.
- ✓ Fast accelerator.
- ✓ Competent bend runner.
- ✓ Ability to carry the baton in their right hand.
- ✓ 100 metre / 200 metre athlete.
- ✓ Good hands.
- ✓ Ability to stay in lane.



Fourth Leg Runner

- ✓ Explosive off the check-mark.
- ✓ Good timing on the check-mark.
- ✓ Fast accelerator.
- ✓ Competent straight runner.
- ✓ Ability to carry the baton in their left hand.
- ✓ 100 metre athlete.
- ✓ Good hands.
- ✓ Competitive.
- ✓ Ability to stay in lane.



Alternate

- ✓ Competent bend and straight runner.
- ✓ Good starter.
- ✓ Good timing on the check-mark.
- ✓ Fast accelerator.
- ✓ Ability to carry baton in both hands.
- ✓ Good hands.
- ✓ Ability to stay in lane.
- ✓ Good motivator.
- ✓ Good team player.





4 x 100 Metre Relay - Baton Exchange Technique

Within the track & field community three baton exchange techniques are commonly used when competing in the sprint relay: push pass, down-sweep and up-sweep.

All Athletic Ireland High Performance 4 x 100 metre relay teams from youth to senior international level currently adopt and actively promote the push pass technique.



4 x 100 Metre Relay - Push-Pass

- ✓ The arm is extended out parallel to the ground and the hand is open with the thumb pointing down.
- ✓ The incoming runner reaches the pre-determined check mark.
- ✓ The outgoing runner sprints at full effort.
- ✓ Both runners facing forward at all times.
- ✓ The incoming runner maintains top speed and on approach calls the pre-determined command – HAND.
- ✓ The outgoing runner extends a steady arm and opens their hand while maintaining top speed.
- ✓ The incoming runner pushes the top of the baton into the open hand.

 Push-pass exchange in zone 1 and zone 3 PLAY 1

 Push-pass exchange in zone 2 PLAY 2



4 x 100 Metre Relay - Check-Mark

- ✓ Check-marks are used so that the baton exchange will be smooth and legal.
- ✓ A check-mark is placed on the track outside the exchange / acceleration zone.
- ✓ White tape is commonly used as a check-mark.
- ✓ The outgoing runner accelerates as the incoming runner meets the check-mark.
- ✓ Poor exchanges occur when the outgoing runner takes-off too early / late.
- ✓ The faster the incoming runner, the further away the check-mark should be.
- ✓ The faster the outgoing runner, the closer the check-mark.
- ✓ Identifying efficient check-marks requires trial and error and takes time.



Check-mark placement

PLAY 3



4 x 100 Metre Relay - Block Start / Take-Off Stance

The lead-off runner starts in blocks.

- ✓ Other team members may use a 2 point or 3 point take-off stance.
- ✓ This will differ for each athlete or team approach.
- ✓ Athletes must have a good sight of their check-mark.



2 point / 3 point start

PLAY 4










Block start

PLAY 5

4 x 100 Metre Relay - Drills

The following drills are important to the development of baton exchange technique. Athletics Ireland High Performance relay squads incorporate these drills into their practice sessions.

Used in the following order these drills may also act as a comprehensive competition 4 x 100 metre squad warm-up routine.

-  Push-pass wall drill **PLAY 6**
-  Squad drill static **PLAY 7**
-  Squad drill static - tap / take **PLAY 8**
-  Squad drill jog **PLAY 9**
-  Pairs drill stride - tap / tap / take **PLAY 10**
-  Pairs drill stride / sprint **PLAY 11**
-  Pairs drill two baton stride / sprint **PLAY 12**



4 x 200 Metre Indoor Relay

- ✓ The 4 x 200 metre indoor relay challenges 4 athletes to run 800 metres as quickly as possible.
- ✓ Each team member runs 200 metres.
- ✓ The lead-off runner carries the baton in their right hand.
- ✓ The 2nd, 3rd and 4th leg runners receive the baton in their left hand.
- ✓ They then change the baton to their right hand before the first bend.
- ✓ All baton exchanges must take place within the 20 metre exchange zone.
- ✓ The outgoing runner shows a clear open hand for the incoming runner.
- ✓ The outgoing runner faces the infield.
- ✓ The 1st runner stays in their lane.
- ✓ The 2nd runner cuts in after the first bend.
- ✓ The lane order for the 3rd and 4th leg runners is determined by their team's position at the 100 metre mark.

 4 x 200 metre relay exchange [PLAY 13](#)



4 x 400 Metre Relay

- ✓ The 4 x 400 metre relay challenges 4 athletes to run 1,600 metres as quickly as possible.
- ✓ Each team member runs 400 metres.
- ✓ The lead-off runner carries the baton in their right hand.
- ✓ The 2nd, 3rd and 4th leg runners receive the baton in their left hand.
- ✓ They then change the baton to their right hand before the first bend.
- ✓ All baton exchanges must take place within the 20 metre exchange zone.
- ✓ The outgoing runner shows a clear open hand for the incoming runner.
- ✓ The outgoing runner faces the infield.
- ✓ The 1st runner stays in their lane.
- ✓ The 2nd runner breaks in after first bend.
- ✓ The lane order for the 3rd and 4th leg runners is determined by their team's position at the 200 metre mark.

 4 x 400 metre exchange [PLAY 14](#)



Things To Remember

- ✓ Relays are team events.
- ✓ Never compromise on baton exchange technique.
- ✓ A well-drilled team is a confident team.
- ✓ Replicate race situations in training.
- ✓ Panic from both coach and athletes will result in errors.
- ✓ A long day of competing will have an effect on athletes.
- ✓ Strong winds are cause for alterations to check-marks.
- ✓ On a wet day the lead-off runner should dry the baton.
- ✓ Relays are exciting and enjoyable for all involved.



Promote Relays

- ✓ Encourage relay teams to warm-up as a group.
- ✓ Hand out batons to athletes to carry while they warm-up.
- ✓ Encourage athletes to carry batons in their left and right hands during training.
- ✓ Incorporate relay drills into training sessions regularly.
- ✓ Include a relay session on easy training weeks.
- ✓ Finish training sessions with a fun relay.
- ✓ Enter relays teams in competitions where possible.
- ✓ Use relays to assist with the development of sprinters.

Credits and Contacts

Athlete Demonstrators: Molly Scott, Eoin Doherty, Joseph Ojewumi, Ciara Neville.



AAi Coach Relays: Daniel Kilgallon 2017
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Videos recorded on location: AIT Sport

AAi Coach YouTube Channel can be accessed here - AAi Coach

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