



TIME ANALYSIS

FOR THE

IAAF World Championships

LONDON 2017

800 m Men's

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INTRODUCTION

The men's 800 m final was held in the late evening of August 8th. The heats were held three days earlier on August 5th, with the semi-finals the following evening. In the six heats, the first three finishers qualified automatically, and the six fastest non-automatic qualifiers also progressed. There were three semi-finals; the first two in each qualified for the final automatically, along with the two fastest losers. The average speeds for each athlete over every 100 m segment are included in this report, as well as a graph of each athlete's position at each 100 m split. The split data were provided by SEIKO. The results of the final are shown below.

IAAF World Championships		London 4-13 August 2017		IAAF World Championships LONDON 2017																															
RESULTS																																			
800 Metres Men - Final																																			
<table border="1"> <thead> <tr> <th>RECORDS</th> <th>RESULT NAME</th> <th>COUNTRY</th> <th>AGE</th> <th>VENUE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>World Record WR</td> <td>1:40.91 David Lekuta RUDISHA</td> <td>KEN</td> <td>24</td> <td>London (Olympic Stadium)</td> <td>9 Aug 2012</td> </tr> <tr> <td>Championships Record CR</td> <td>1:43.06 Billy KONCHELLAH</td> <td>KEN</td> <td>26</td> <td>Roma (Stadio Olimpico)</td> <td>1 Sep 1987</td> </tr> <tr> <td>World Leading WL</td> <td>1:43.10 Emmanuel Kipkurui KORIR</td> <td>KEN</td> <td>22</td> <td>Monaco (Stade Louis II)</td> <td>21 Jul 2017</td> </tr> <tr> <td>Area Record AR</td> <td>National Record NR</td> <td>Personal Best PB</td> <td>Season Best SB</td> <td colspan="2"></td> </tr> </tbody> </table>						RECORDS	RESULT NAME	COUNTRY	AGE	VENUE	DATE	World Record WR	1:40.91 David Lekuta RUDISHA	KEN	24	London (Olympic Stadium)	9 Aug 2012	Championships Record CR	1:43.06 Billy KONCHELLAH	KEN	26	Roma (Stadio Olimpico)	1 Sep 1987	World Leading WL	1:43.10 Emmanuel Kipkurui KORIR	KEN	22	Monaco (Stade Louis II)	21 Jul 2017	Area Record AR	National Record NR	Personal Best PB	Season Best SB		
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8 August 2017 21:36 START TIME 19° C TEMPERATURE 56 % HUMIDITY																																			
PLACE	NAME	COUNTRY	DATE of BIRTH	LANE	RESULT																														
1	Pierre-Ambroise BOSSE	FRA	11 May 92	4	1:44.67	SB																													
2	Adam KSZCZOT	POL	2 Sep 89	8	1:44.95	SB																													
3	Kipyegon BETT	KEN	1 Feb 98	6	1:45.21																														
4	Kyle LANGFORD	GBR	2 Feb 96	3	1:45.25	PB																													
5	Nijel AMOS	BOT	15 Mar 94	5	1:45.83																														
6	Mohammed AMAN	ETH	10 Jan 94	2	1:46.06																														
7	Thiago ANDRÉ	BRA	4 Aug 95	9	1:46.30																														
8	Brandon MCBRIDE	CAN	15 Jun 94	7	1:47.09																														
Timing and Measurement by SEIKO			AT-800-M-f--1--.R51..v1		Issued at 21:41 on Tuesday, 08 August 2017																														
Official Partners																																			

Table 1. List of abbreviations used.

Q	Automatic qualifier for next round	DNF	Did not finish
q	Qualified for next round as fastest loser	PB	Personal best time
DQ	Disqualified	SB	Season's best time

Heat 1

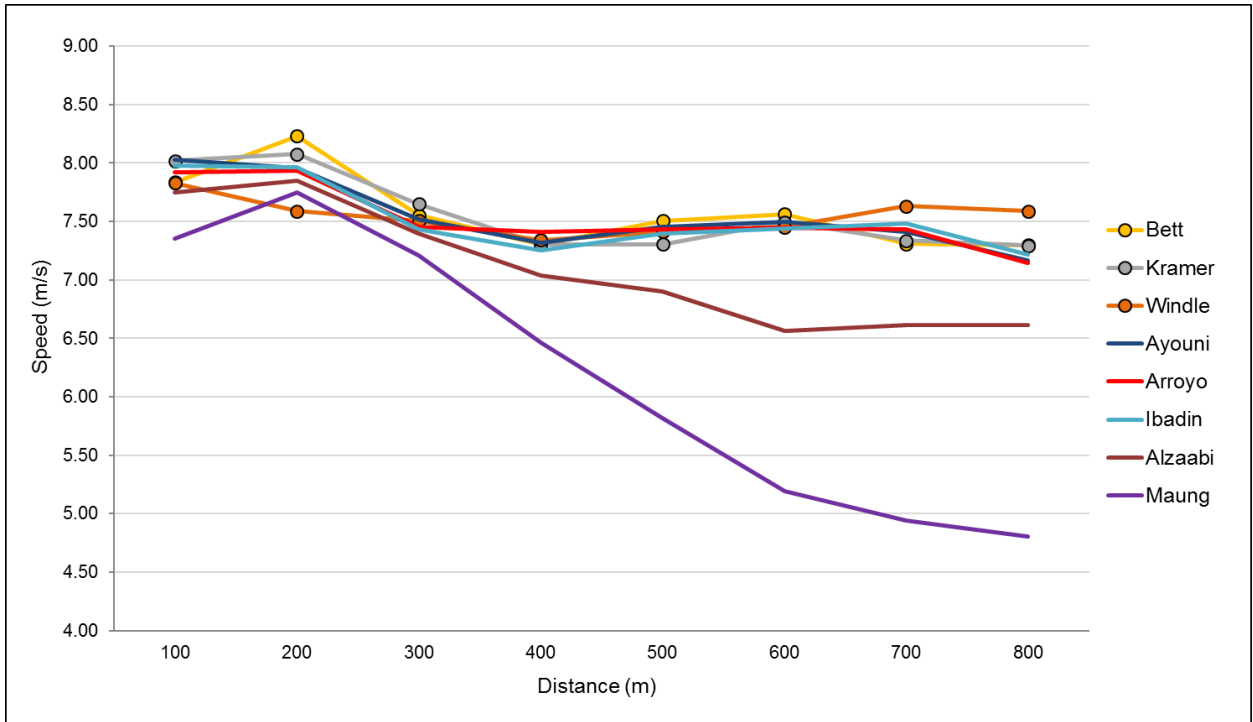


Figure 1. The mean speeds for each 100 m segment for each athlete in Heat 1.

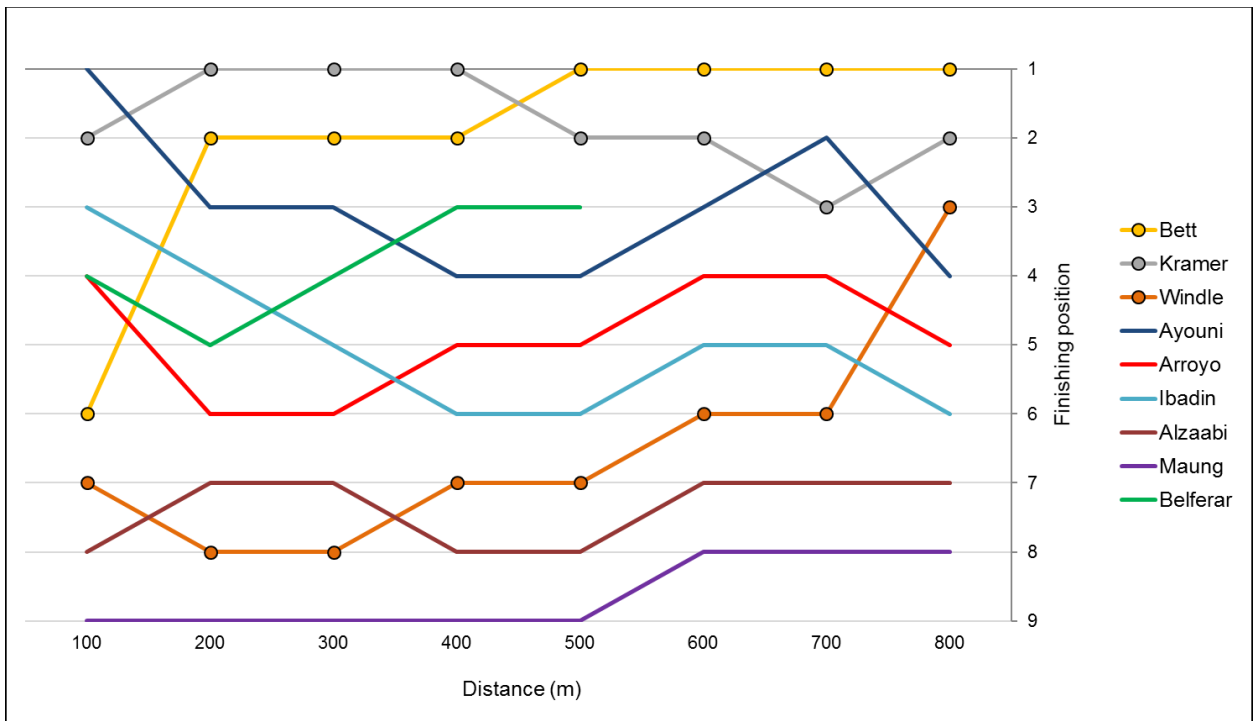


Figure 2. The position of each athlete after each 100 m segment in Heat 1.

1126	Bett, Kipyegon (KEN) Q	Posn. 1
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	12.76 24.91 38.15 51.84 1:05.16 1:18.38 1:32.06 1:45.76	
100m	12.76 12.15 13.24 13.69 13.32 13.22 13.68 13.70	
400m		51.84
		53.92
1307	Kramer, Andreas (SWE) Q	Posn. 2
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	12.47 24.85 37.92 51.61 1:05.30 1:18.64 1:32.27 1:45.98	
100m	12.47 12.38 13.07 13.69 13.69 13.34 13.63 13.71	
400m		51.61
		54.37
1447	Windle, Drew (USA) Q	Posn. 3
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	12.77 25.95 39.27 52.89 1:06.38 1:19.80 1:32.90 1:46.08	
100m	12.77 13.18 13.32 13.62 13.49 13.42 13.10 13.18	
400m		52.89
		53.19
1336	Ayouni, Abdessalem (TUN) q	Posn. 4
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	12.46 25.03 38.33 51.99 1:05.40 1:18.74 1:32.23 1:46.19	
100m	12.46 12.57 13.30 13.66 13.41 13.34 13.49 13.96	
400m		51.99
		54.20
1261	Arroyo, Andrés (PUR)	Posn. 5
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	12.62 25.22 38.64 52.13 1:05.58 1:19.01 1:32.46 1:46.46	
100m	12.62 12.60 13.42 13.49 13.45 13.43 13.45 14.00	
400m		52.13
		54.33
1460	Ibadin, Edose (NGR)	Posn. 6
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	12.53 25.09 38.55 52.34 1:05.86 1:19.30 1:32.66 1:46.51	
100m	12.53 12.56 13.46 13.79 13.52 13.44 13.36 13.85	
400m		52.34
		54.17
1353	Alzaabi, Saud (UAE)	Posn. 7
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	12.90 25.64 39.16 53.37 1:07.86 1:23.10 1:38.22 1:53.34	
100m	12.90 12.74 13.52 14.21 14.49 15.24 15.12 15.12	
400m		53.37
		59.97
1193	Maung, Pyae Sone (MYA)	Posn. 8
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	13.60 26.50 40.37 55.84 1:13.04 1:32.31 1:52.56 2:13.38	
100m	13.60 12.90 13.87 15.47 17.20 19.27 20.25 20.82	
400m		55.84
		77.54
603	Belferar, Amine (ALG)	DNF
	100m 200m 300m 400m 500m 600m 700m 800m	
Race Time	12.62 25.19 38.34 51.94 1:05.35	
100m	12.62 12.57 13.15 13.60 13.41	
400m		51.94

Heat 2

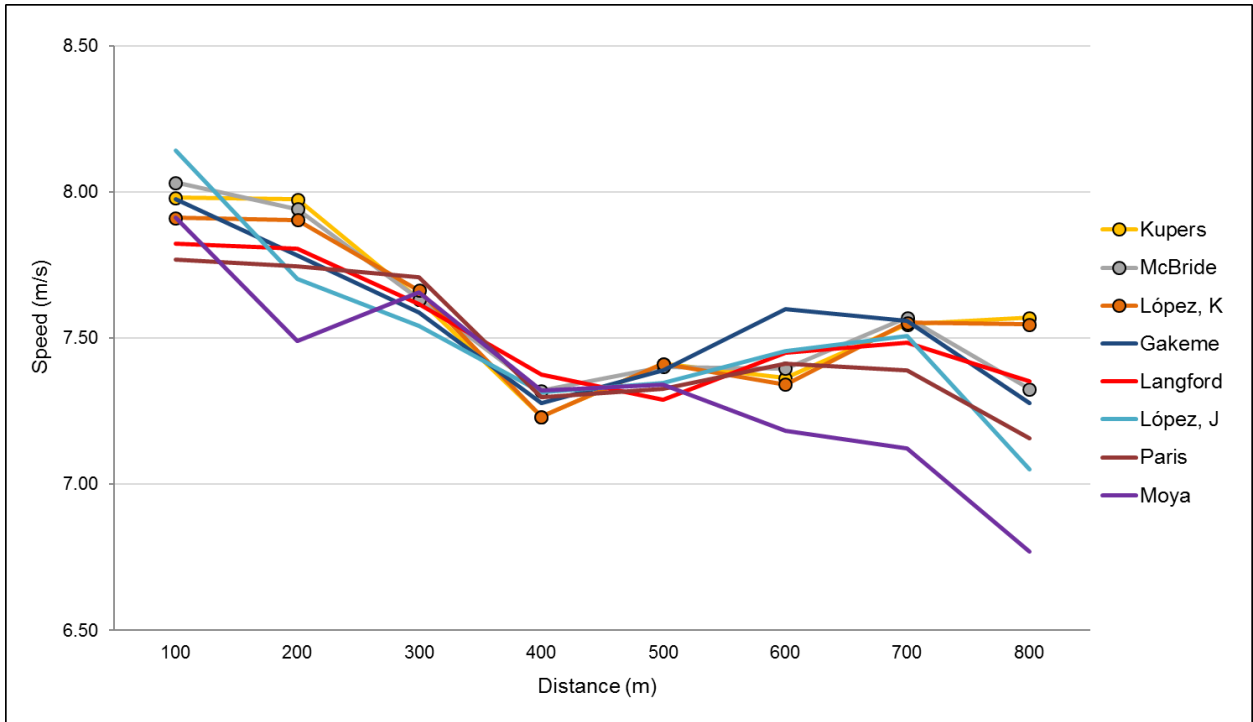


Figure 3. The mean speeds for each 100 m segment for each athlete in Heat 2.

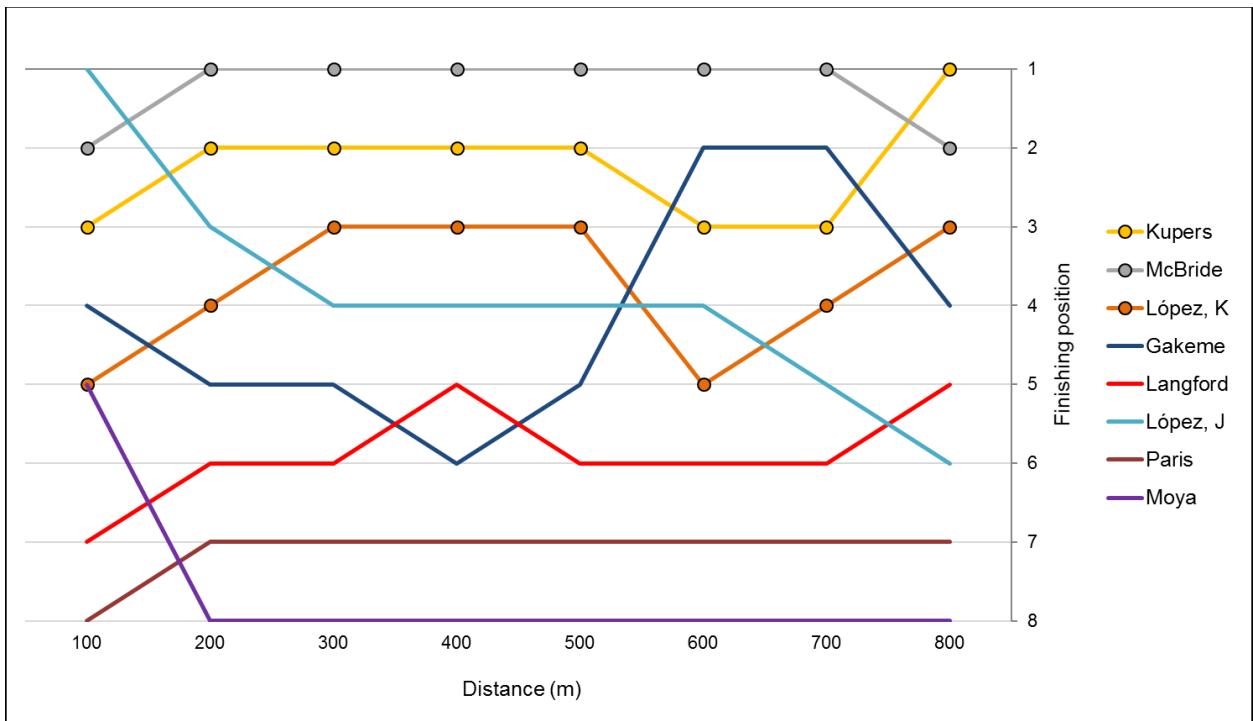


Figure 4. The position of each athlete after each 100 m segment in Heat 1.

1202	Kupers, Thijmen (NED) Q	Posn. 1
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.53	25.07	38.17	52.00	1:05.49	1:19.07	1:32.32	1:45.53
100m	12.53	12.54	13.10	13.83	13.49	13.58	13.25	13.21
400m				52.00				53.53

760	McBride, Brandon (CAN) Q	Posn. 2
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.45	25.04	38.14	51.80	1:05.31	1:18.83	1:32.04	1:45.69
100m	12.45	12.59	13.10	13.66	13.51	13.52	13.21	13.65
400m				51.80				53.89

872	López, Kevin (ESP) Q	Posn. 3
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.64	25.29	38.34	52.17	1:05.66	1:19.28	1:32.52	1:45.77
100m	12.64	12.65	13.05	13.83	13.49	13.62	13.24	13.25
400m				52.17				53.60

684	Gakeme, Antoine (BDI) q	Posn. 4
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.54	25.39	38.57	52.31	1:05.84	1:19.00	1:32.23	1:45.97
100m	12.54	12.85	13.18	13.74	13.53	13.16	13.23	13.74
400m				52.31				53.66

966	Langford, Kyle (GBR) q	Posn. 5
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.78	25.59	38.72	52.28	1:06.00	1:19.42	1:32.78	1:46.38
100m	12.78	12.81	13.13	13.56	13.72	13.42	13.36	13.60
400m				52.28				54.10

1187	López, Jesús Tonatiu (MEX)	Posn. 6
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.28	25.26	38.52	52.19	1:05.80	1:19.21	1:32.53	1:46.71
100m	12.28	12.98	13.26	13.67	13.61	13.41	13.32	14.18
400m				52.19				54.52

627	Paris, Leandro (ARG) PB	Posn. 7
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.87	25.78	38.75	52.45	1:06.10	1:19.59	1:33.12	1:47.09
100m	12.87	12.91	12.97	13.70	13.65	13.49	13.53	13.97
400m				52.45				54.64

619	Moya, Pol (AND)	Posn. 8
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.64	25.99	39.05	52.71	1:06.33	1:20.25	1:34.29	1:49.06
100m	12.64	13.35	13.06	13.66	13.62	13.92	14.04	14.77
400m				52.71				56.35

Heat 3

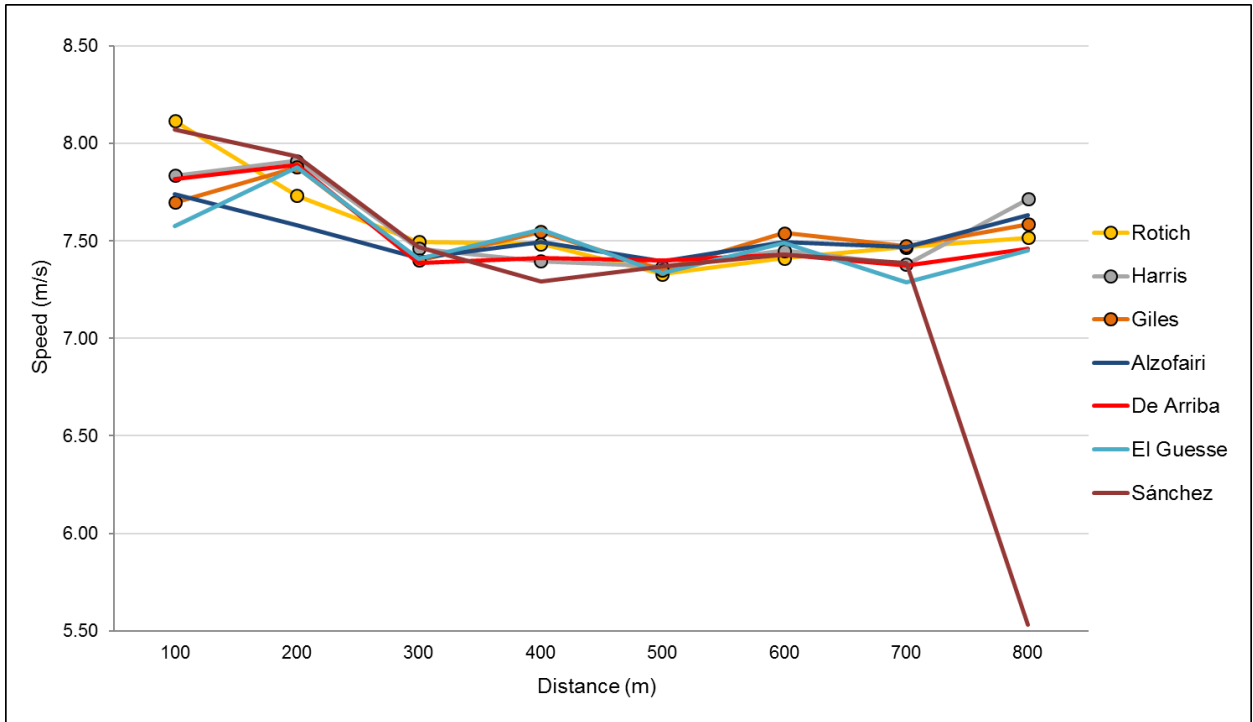


Figure 5. The mean speeds for each 100 m segment for each athlete in Heat 3.

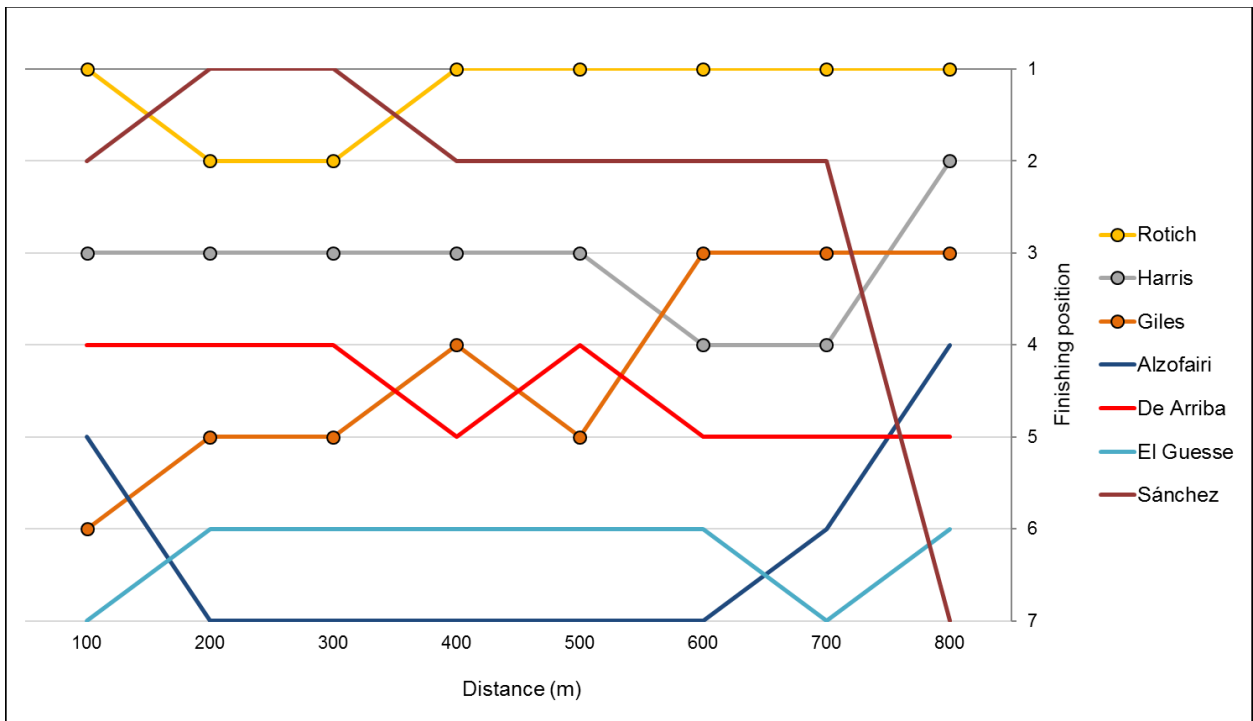


Figure 6. The position of each athlete after each 100 m segment in Heat 3.

1145	Rotich, Ferguson Cheruiyot (KEN) Q	Posn. 1
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.32	25.25	38.59	51.95	1:05.59	1:19.08	1:32.47	1:45.77
100m	12.32	12.93	13.34	13.36	13.64	13.49	13.39	13.30
400m				51.95				53.82

1399	Harris, Isaiah (USA) Q	Posn. 2
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.76	25.40	38.80	52.32	1:05.89	1:19.31	1:32.86	1:45.82
100m	12.76	12.64	13.40	13.52	13.57	13.42	13.55	12.96
400m				52.32				53.50

957	Giles, Elliot (GBR) Q	Posn. 3
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.99	25.68	39.19	52.44	1:06.04	1:19.30	1:32.68	1:45.86
100m	12.99	12.69	13.51	13.25	13.60	13.26	13.38	13.18
400m				52.44				53.42

1160	Alzofairi, Ebrahim (KUW) q PB	Posn. 4
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.92	26.11	39.60	52.94	1:06.46	1:19.80	1:33.19	1:46.29
100m	12.92	13.19	13.49	13.34	13.52	13.34	13.39	13.10
400m				52.94				53.35

864	De Arriba, Álvaro (ESP) q	Posn. 5
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.79	25.46	39.00	52.49	1:06.00	1:19.46	1:33.02	1:46.42
100m	12.79	12.67	13.54	13.49	13.51	13.46	13.56	13.40
400m				52.49				53.93

1173	El Guesse, Abdelati (MAR)	Posn. 6
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	13.20	25.89	39.39	52.62	1:06.25	1:19.60	1:33.32	1:46.74
100m	13.20	12.69	13.50	13.23	13.63	13.35	13.72	13.42
400m				52.62				54.12

1263	Sánchez, Ryan (PUR)	Posn. 7
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.39	24.99	38.38	52.09	1:05.66	1:19.12	1:32.66	1:50.74
100m	12.39	12.60	13.39	13.71	13.57	13.46	13.54	18.08
400m				52.09				58.65

Heat 4

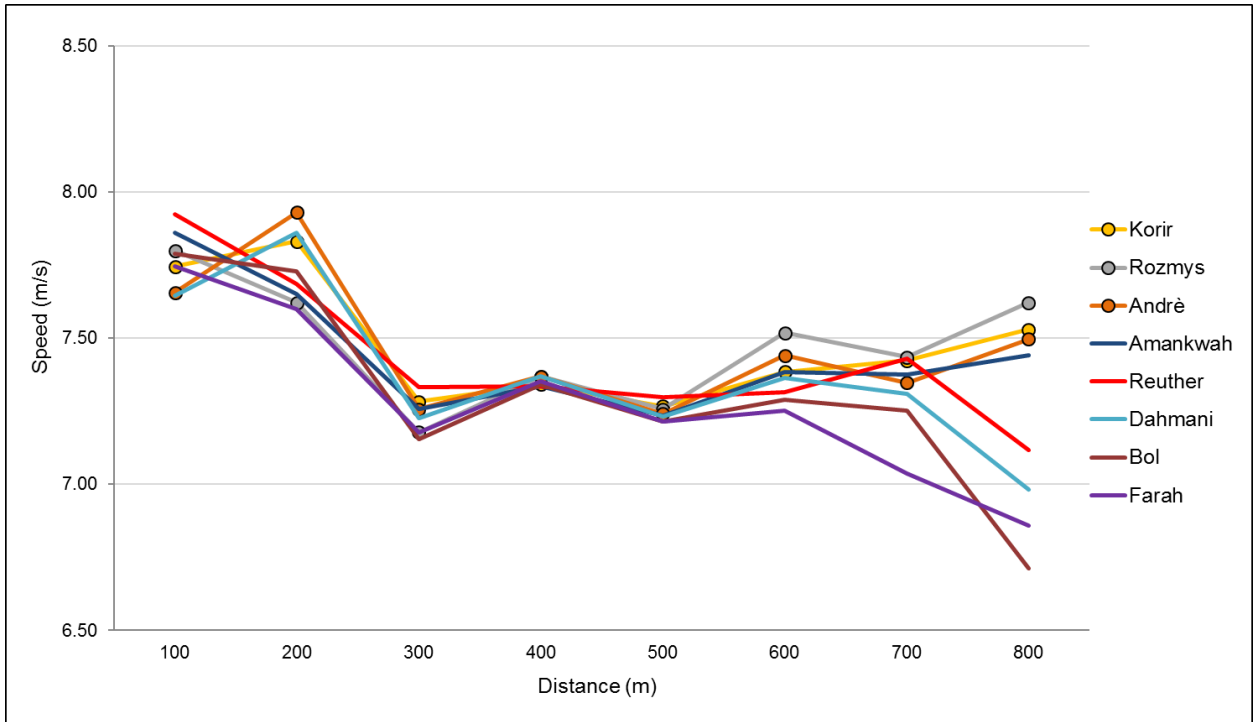


Figure 7. The mean speeds for each 100 m segment for each athlete in Heat 4.

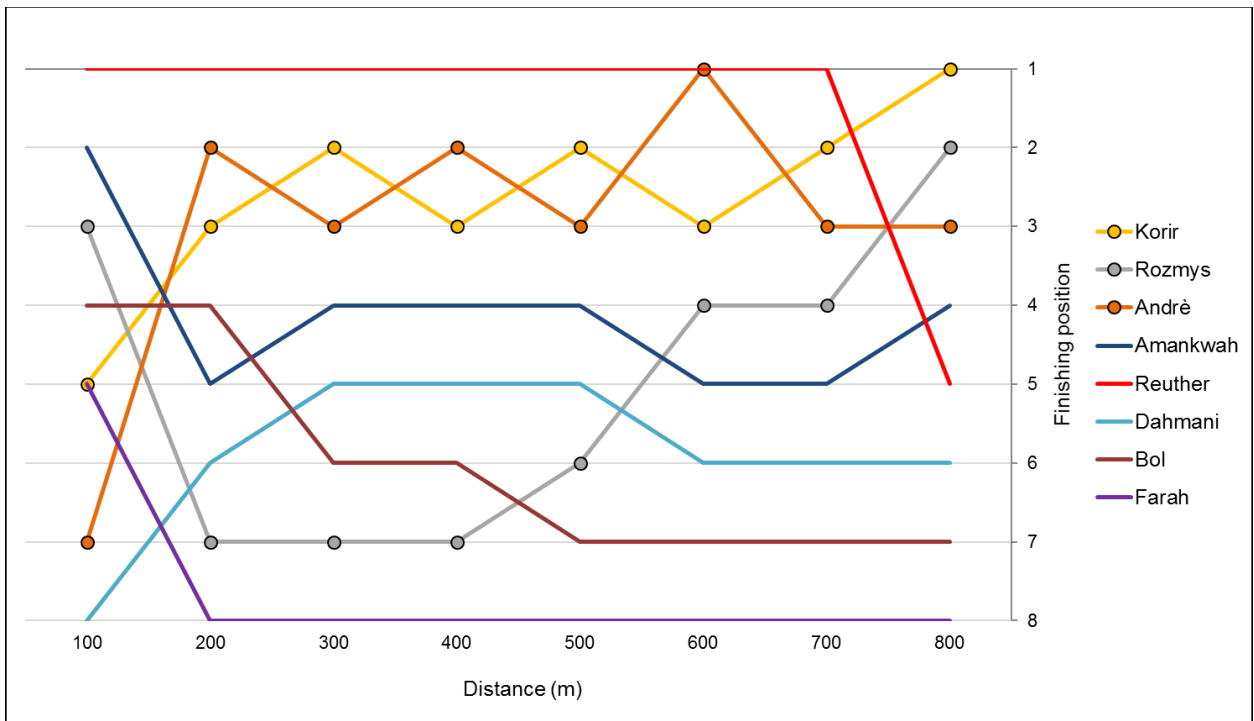


Figure 8. The position of each athlete after each 100 m segment in Heat 4.

1138	Korir, Emmanuel Kipkurui (KEN) Q	Posn. 1
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.91	25.68	39.41	53.03	1:06.79	1:20.33	1:33.80	1:47.08
100m	12.91	12.77	13.73	13.62	13.76	13.54	13.47	13.28
400m				53.03				54.05

1250	Rozmys, Michal (POL) Q	Posn. 2
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.82	25.94	39.87	53.44	1:07.22	1:20.52	1:33.97	1:47.09
100m	12.82	13.12	13.93	13.57	13.78	13.30	13.45	13.12
400m				53.44				53.65

713	Andrè, Thiago (BRA) Q	Posn. 3
-----	-----------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	13.06	25.67	39.45	53.02	1:06.83	1:20.27	1:33.88	1:47.22
100m	13.06	12.61	13.78	13.57	13.81	13.44	13.61	13.34
400m				53.02				54.20

1015	Amankwah, Alex (GHA)	Posn. 4
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.72	25.79	39.57	53.20	1:07.02	1:20.56	1:34.12	1:47.56
100m	12.72	13.07	13.78	13.63	13.82	13.54	13.56	13.44
400m				53.20				54.36

1006	Reuther, Marc (GER)	Posn. 5
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.62	25.63	39.27	52.90	1:06.60	1:20.27	1:33.73	1:47.78
100m	12.62	13.01	13.64	13.63	13.70	13.67	13.46	14.05
400m				52.90				54.88

923	Dahmani, Samir (FRA)	Posn. 6
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	13.08	25.80	39.64	53.21	1:07.04	1:20.62	1:34.30	1:48.62
100m	13.08	12.72	13.84	13.57	13.83	13.58	13.68	14.32
400m				53.21				55.41

637	Bol, Peter (AUS)	Posn. 7
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.84	25.78	39.76	53.38	1:07.24	1:20.96	1:34.75	1:49.65
100m	12.84	12.94	13.98	13.62	13.86	13.72	13.79	14.90
400m				53.38				56.27

632	Farah, Ahmed Bashir (ART) PB	Posn. 8
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.91	26.07	40.00	53.60	1:07.46	1:21.25	1:35.46	1:50.04
100m	12.91	13.16	13.93	13.60	13.86	13.79	14.21	14.58
400m				53.60				56.44

Heat 5

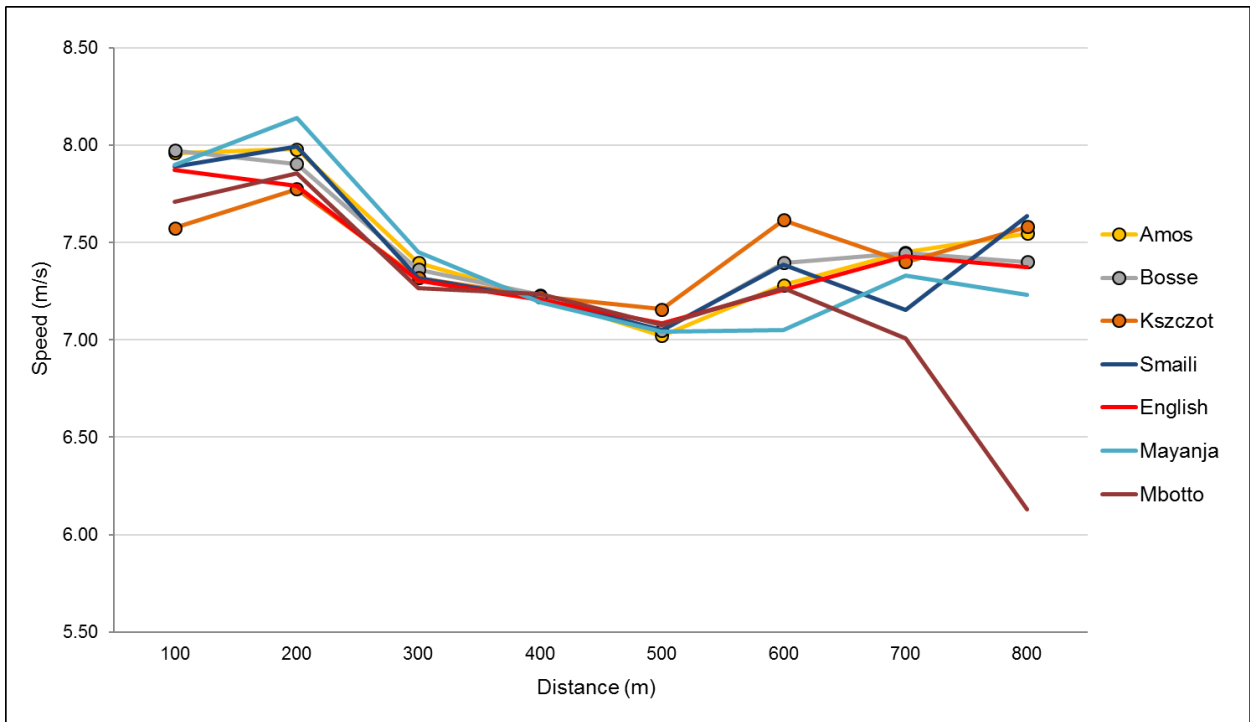


Figure 9. The mean speeds for each 100 m segment for each athlete in Heat 5.

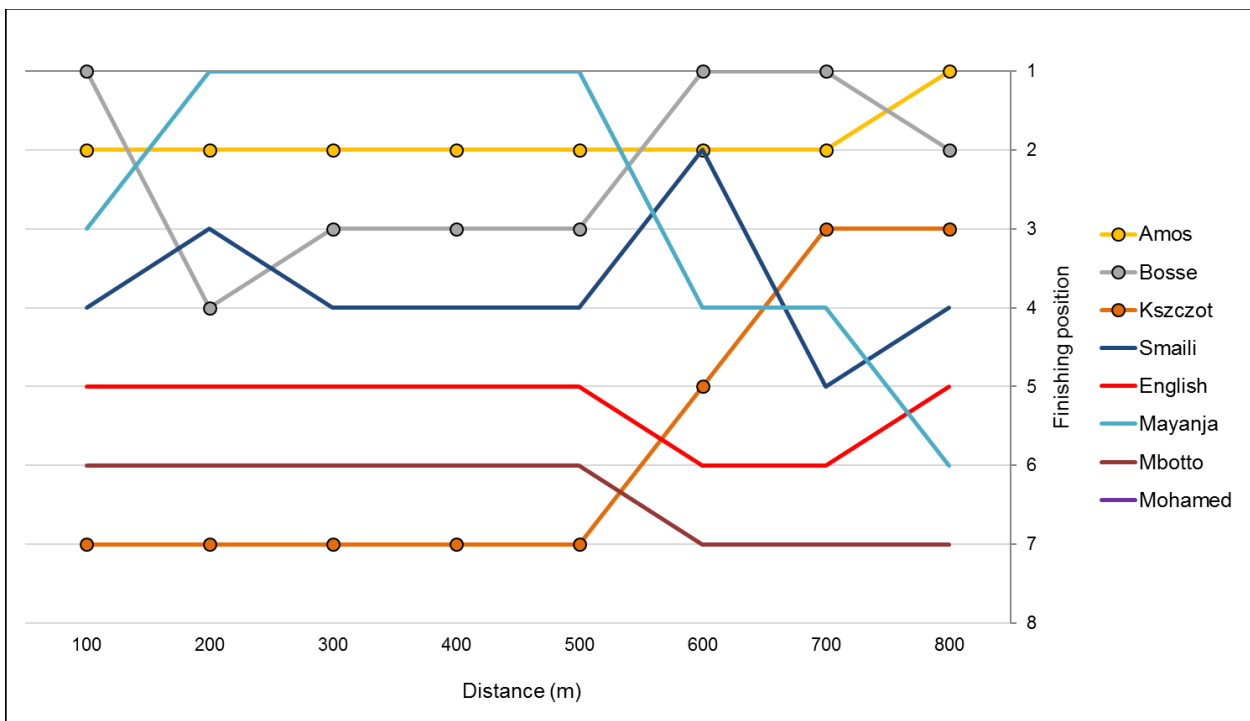


Figure 10. The position of each athlete after each 100 m segment in Heat 5.

707	Amos, Nijel (BOT) Q	Posn. 1
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.56	25.09	38.61	52.46	1:06.70	1:20.43	1:33.85	1:47.10
100m	12.56	12.53	13.52	13.85	14.24	13.73	13.42	13.25
400m				52.46				54.64

919	Bosse, Pierre-Ambroise (FRA) Q	Posn. 2
-----	--------------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.54	25.19	38.77	52.60	1:06.79	1:20.31	1:33.74	1:47.25
100m	12.54	12.65	13.58	13.83	14.19	13.52	13.43	13.51
400m				52.60				54.65

1244	Kszczot, Adam (POL) Q	Posn. 3
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	13.20	26.06	39.72	53.56	1:07.53	1:20.66	1:34.17	1:47.36
100m	13.20	12.86	13.66	13.84	13.97	13.13	13.51	13.19
400m				53.56				53.80

1179	Smaili, Mostafa (MAR)	Posn. 4
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.67	25.18	38.84	52.71	1:06.89	1:20.43	1:34.41	1:47.50
100m	12.67	12.51	13.66	13.87	14.18	13.54	13.98	13.09
400m				52.71				54.79

1054	English, Mark (IRL)	Posn. 5
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.70	25.53	39.22	53.10	1:07.21	1:20.99	1:34.45	1:48.01
100m	12.70	12.83	13.69	13.88	14.11	13.78	13.46	13.56
400m				53.10				54.91

1360	Mayanja, Abu Salim (UGA)	Posn. 6
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.66	24.94	38.36	52.26	1:06.46	1:20.64	1:34.28	1:48.11
100m	12.66	12.28	13.42	13.90	14.20	14.18	13.64	13.83
400m				52.26				55.85

747	Mbotto, Francky (CAF)	Posn. 7
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.97	25.70	39.46	53.28	1:07.41	1:21.17	1:35.44	1:51.76
100m	12.97	12.73	13.76	13.82	14.13	13.76	14.27	16.32
400m				53.28				58.48

848	Mohamed, Hamada (EGY)	DNF
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time								
100m								
400m								

Heat 6

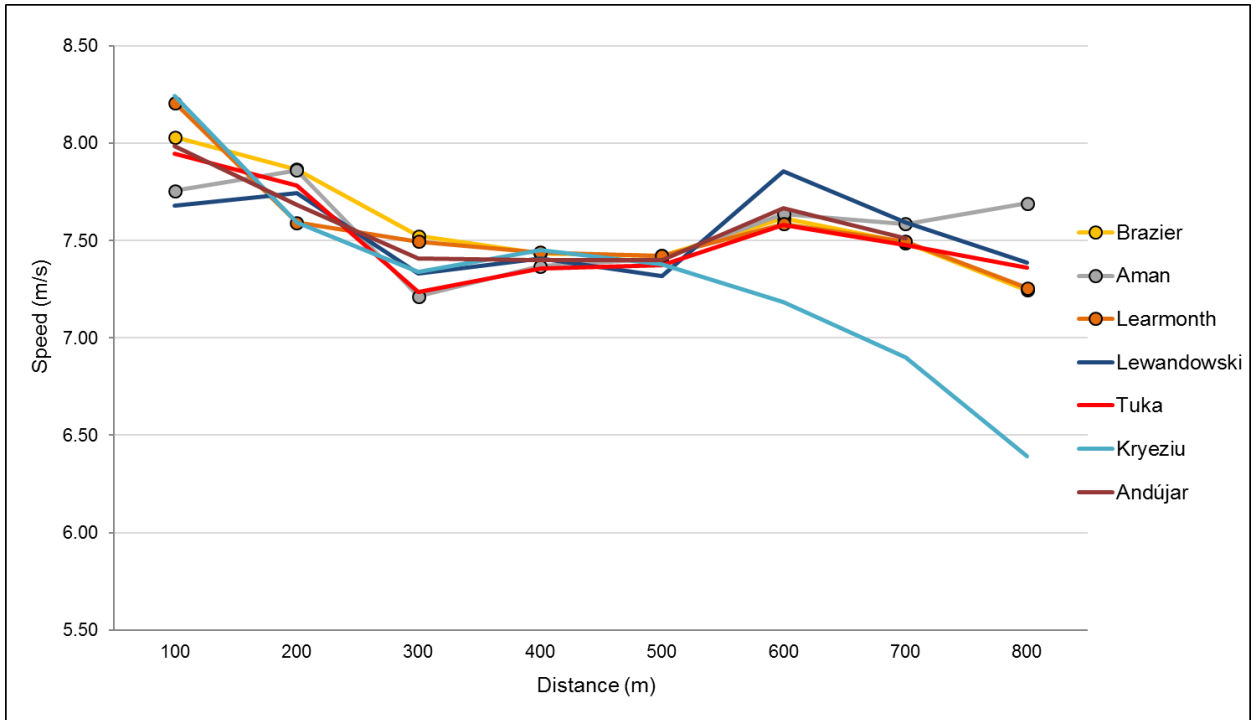


Figure 11. The mean speeds for each 100 m segment for each athlete in Heat 6.

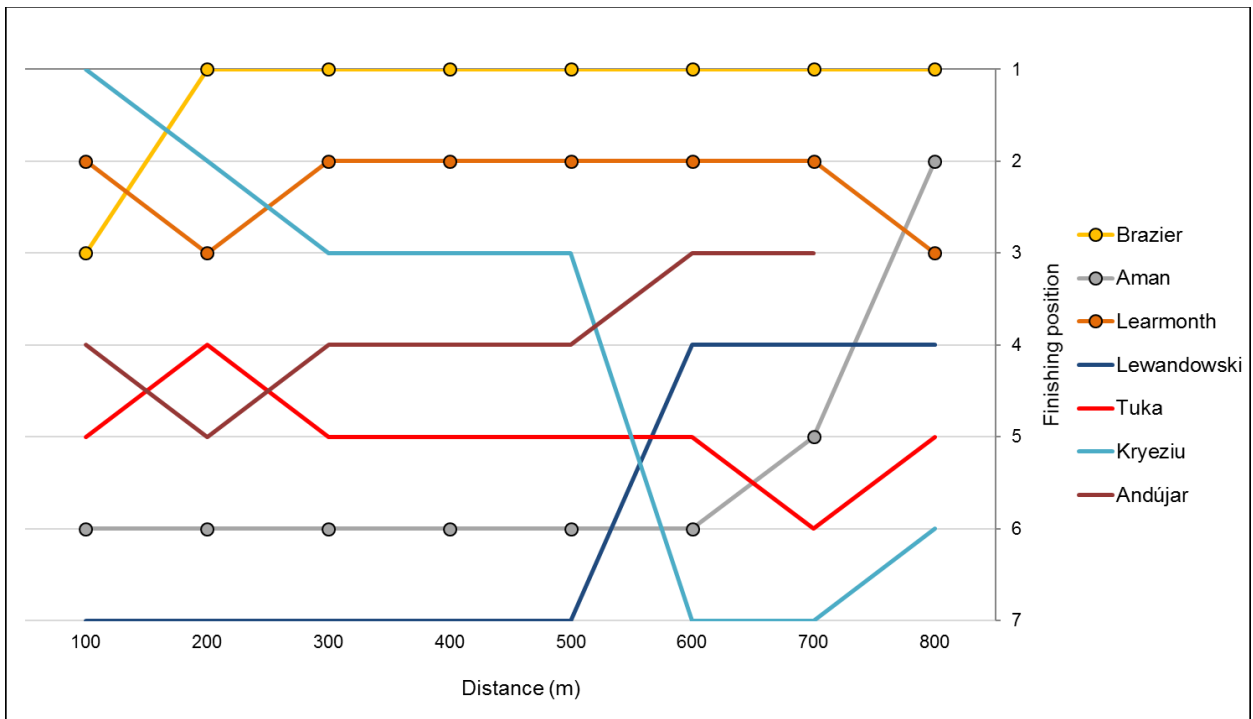


Figure 12. The position of each athlete after each 100 m segment in Heat 6.

1379	Brazier, Donavan (USA) Q	Posn. 1
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.45	25.16	38.45	51.90	1:05.37	1:18.50	1:31.85	1:45.65
100m	12.45	12.71	13.29	13.45	13.47	13.13	13.35	13.80
400m				51.90				53.75

892	Aman, Mohammed (ETH) Q	Posn. 2
-----	------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.89	25.61	39.47	53.04	1:06.54	1:19.63	1:32.81	1:45.81
100m	12.89	12.72	13.86	13.57	13.50	13.09	13.18	13.00
400m				53.04				52.77

967	Learmonth, Guy (GBR) Q	Posn. 3
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.18	25.35	38.69	52.13	1:05.60	1:18.78	1:32.12	1:45.90
100m	12.18	13.17	13.34	13.44	13.47	13.18	13.34	13.78
400m				52.13				53.77

1245	Lewandowski, Marcin (POL) q	Posn. 4
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	13.02	25.93	39.57	53.07	1:06.73	1:19.46	1:32.63	1:46.17
100m	13.02	12.91	13.64	13.50	13.66	12.73	13.17	13.54
400m				53.07				53.10

701	Tuka, Amel (BIH)	Posn. 5
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.58	25.43	39.25	52.84	1:06.40	1:19.59	1:32.96	1:46.54
100m	12.58	12.85	13.82	13.59	13.56	13.19	13.37	13.58
400m				52.84				53.70

1156	Kryeziu, Astrit (KOS)	Posn. 6
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.13	25.30	38.92	52.34	1:05.89	1:19.81	1:34.30	1:49.94
100m	12.13	13.17	13.62	13.42	13.55	13.92	14.49	15.64
400m				52.34				57.60

856	Andújar, Daniel (ESP)	DQ
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.52	25.53	39.03	52.54	1:06.05	1:19.09	1:32.40	
100m	12.52	13.01	13.50	13.51	13.51	13.04	13.31	
400m				52.54				

Semi-final 1

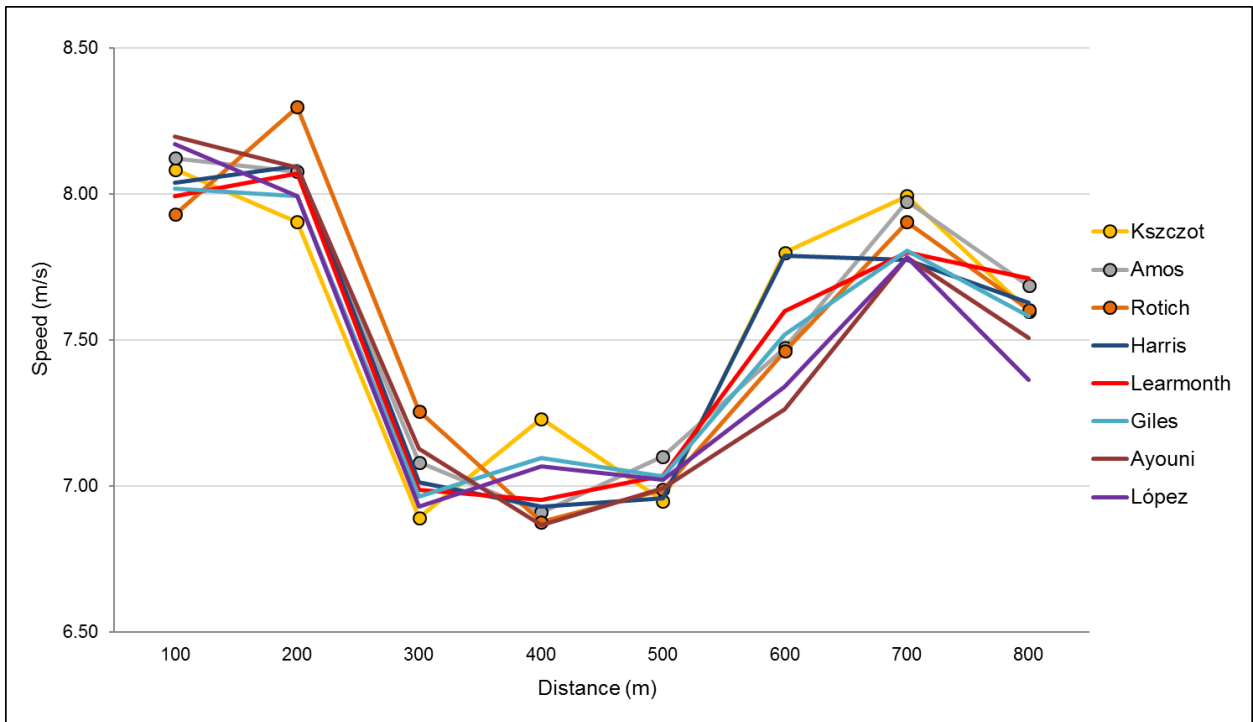


Figure 13. The mean speeds for each 100 m segment for each athlete in Semi-final 1.

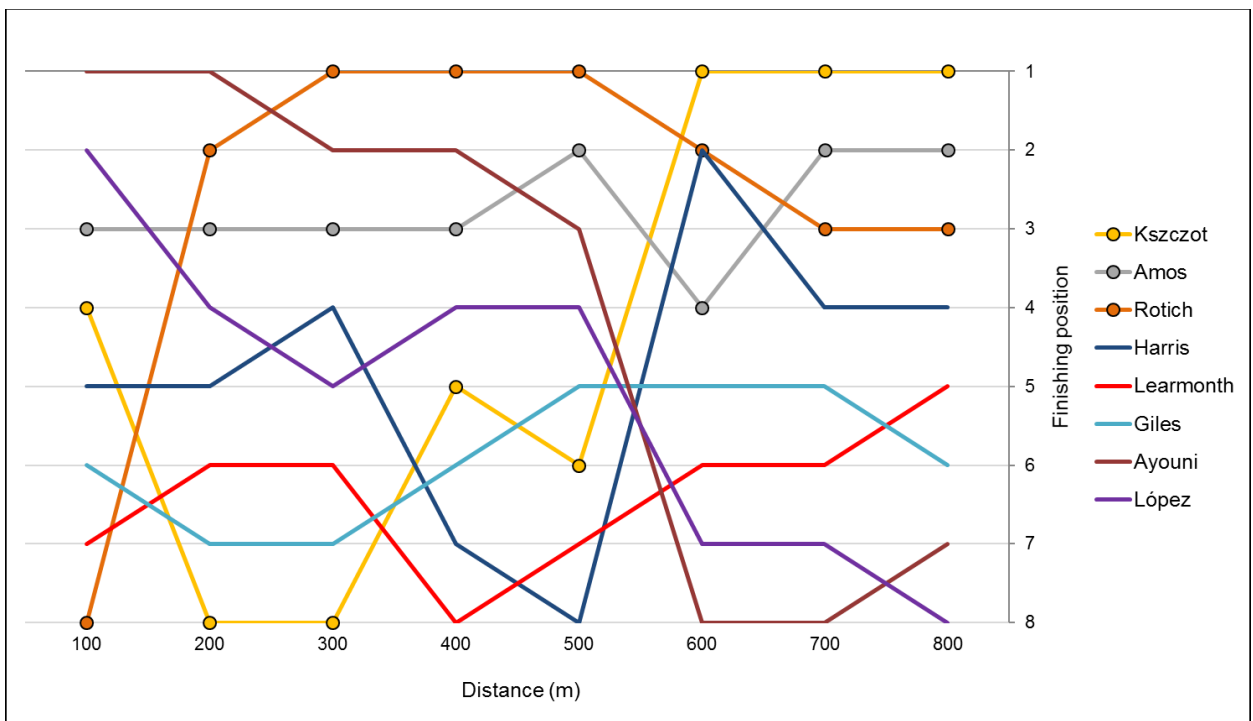


Figure 14. The position of each athlete after each 100 m segment in Semi-final 1.

1244	Kszczot, Adam (POL) Q	Posn. 1
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.37	25.02	39.53	53.36	1:07.75	1:20.57	1:33.08	1:46.24
100m	12.37	12.65	14.51	13.83	14.39	12.82	12.51	13.16
400m				53.36				52.88

707	Amos, Nijel (BOT) Q	Posn. 2
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.31	24.69	38.81	53.28	1:07.36	1:20.74	1:33.28	1:46.29
100m	12.31	12.38	14.12	14.47	14.08	13.38	12.54	13.01
400m				53.28				53.01

1145	Rotich, Ferguson Cheruiyot (KEN)	Posn. 3
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.61	24.66	38.44	52.98	1:07.29	1:20.69	1:33.34	1:46.49
100m	12.61	12.05	13.78	14.54	14.31	13.40	12.65	13.15
400m				52.98				53.51

1399	Harris, Isaiah (USA)	Posn. 4
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.44	24.79	39.05	53.48	1:07.85	1:20.69	1:33.55	1:46.66
100m	12.44	12.35	14.26	14.43	14.37	12.84	12.86	13.11
400m				53.48				53.18

967	Learmonth, Guy (GBR)	Posn. 5
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.51	24.90	39.21	53.59	1:07.80	1:20.96	1:33.78	1:46.75
100m	12.51	12.39	14.31	14.38	14.21	13.16	12.82	12.97
400m				53.59				53.16

957	Giles, Elliot (GBR)	Posn. 6
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.47	24.98	39.34	53.43	1:07.65	1:20.95	1:33.76	1:46.95
100m	12.47	12.51	14.36	14.09	14.22	13.30	12.81	13.19
400m				53.43				53.52

1336	Ayouni, Abdessalem (TUN)	Posn. 7
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.20	24.56	38.59	53.15	1:07.45	1:21.22	1:34.07	1:47.39
100m	12.20	12.36	14.03	14.56	14.30	13.77	12.85	13.32
400m				53.15				54.24

872	López, Kevin (ESP)	Posn. 8
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.24	24.75	39.18	53.33	1:07.57	1:21.19	1:34.04	1:47.62
100m	12.24	12.51	14.43	14.15	14.24	13.62	12.85	13.58
400m				53.33				54.29

Semi-final 2

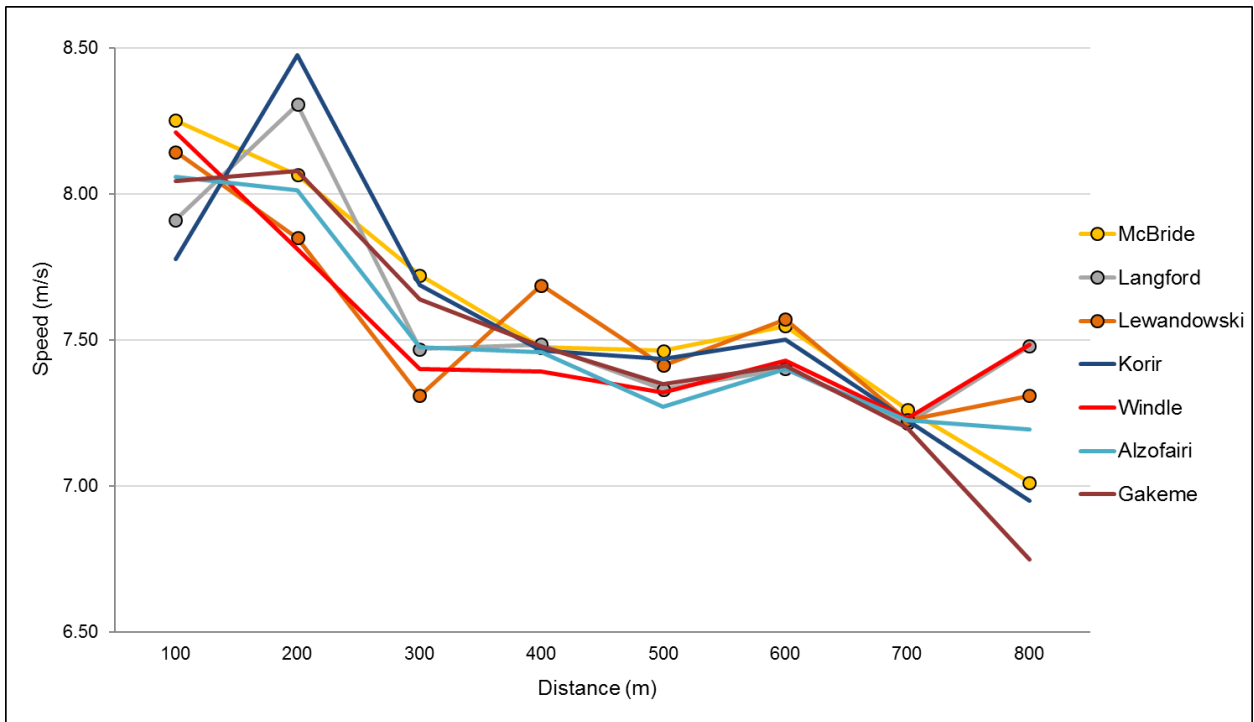


Figure 15. The mean speeds for each 100 m segment for each athlete in Semi-final 2.

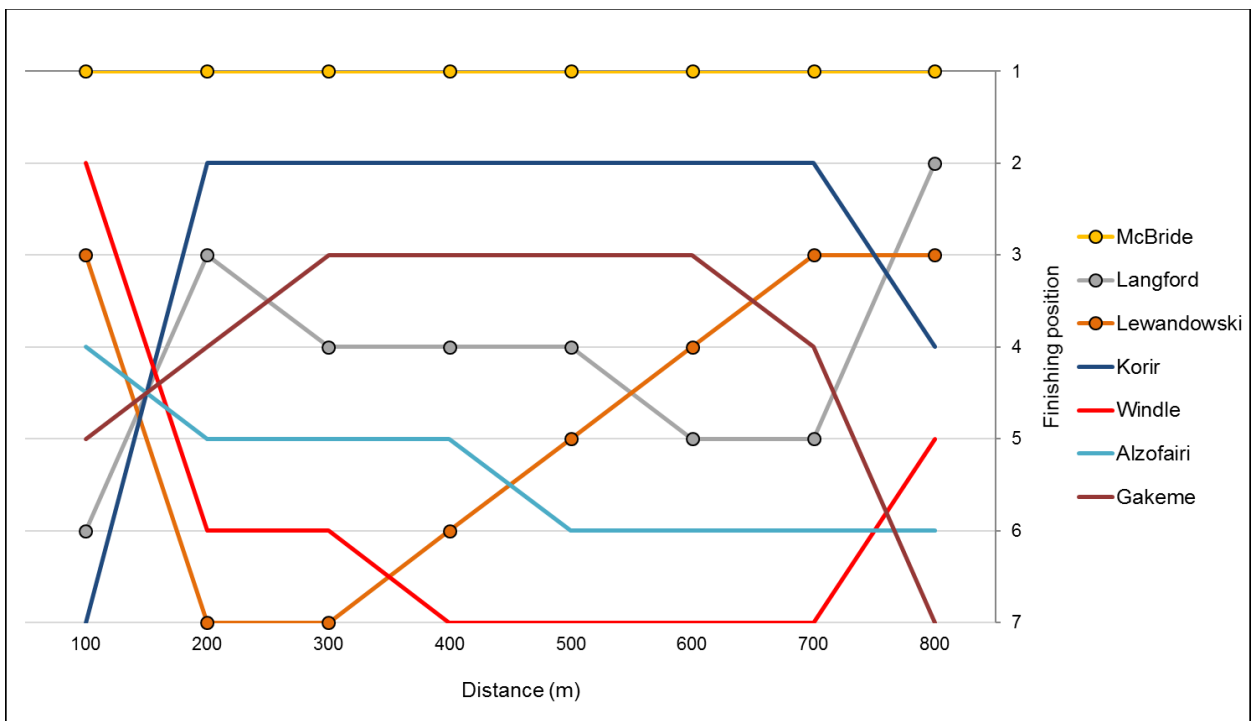


Figure 16. The position of each athlete after each 100 m segment in Semi-final 2.

760	McBride, Brandon (CAN) Q	Posn. 1
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.12	24.52	37.47	50.85	1:04.25	1:17.50	1:31.27	1:45.53
100m	12.12	12.40	12.95	13.38	13.40	13.25	13.77	14.26
400m				50.85				54.68

966	Langford, Kyle (GBR) Q	Posn. 2
-----	------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.64	24.68	38.07	51.43	1:05.07	1:18.58	1:32.44	1:45.81
100m	12.64	12.04	13.39	13.36	13.64	13.51	13.86	13.37
400m				51.43				54.38

1245	Lewandowski, Marcin (POL)	Posn. 3
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.28	25.02	38.70	51.71	1:05.20	1:18.41	1:32.25	1:45.93
100m	12.28	12.74	13.68	13.01	13.49	13.21	13.84	13.68
400m				51.71				54.22

1138	Korir, Emmanuel Kipkurui (KEN)	Posn. 4
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.86	24.66	37.67	51.07	1:04.52	1:17.85	1:31.69	1:46.08
100m	12.86	11.80	13.01	13.40	13.45	13.33	13.84	14.39
400m				51.07				55.01

1447	Windle, Drew (USA)	Posn. 5
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.18	24.98	38.49	52.02	1:05.68	1:19.14	1:32.97	1:46.33
100m	12.18	12.80	13.51	13.53	13.66	13.46	13.83	13.36
400m				52.02				54.31

1160	Alzofairi, Ebrahim (KUW)	Posn. 6
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.41	24.89	38.27	51.68	1:05.43	1:18.94	1:32.78	1:46.68
100m	12.41	12.48	13.38	13.41	13.75	13.51	13.84	13.90
400m				51.68				55.00

684	Gakeme, Antoine (BDI)	Posn. 7
-----	-----------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.43	24.81	37.90	51.27	1:04.88	1:18.37	1:32.26	1:47.08
100m	12.43	12.38	13.09	13.37	13.61	13.49	13.89	14.82
400m				51.27				55.81

Semi-final 3

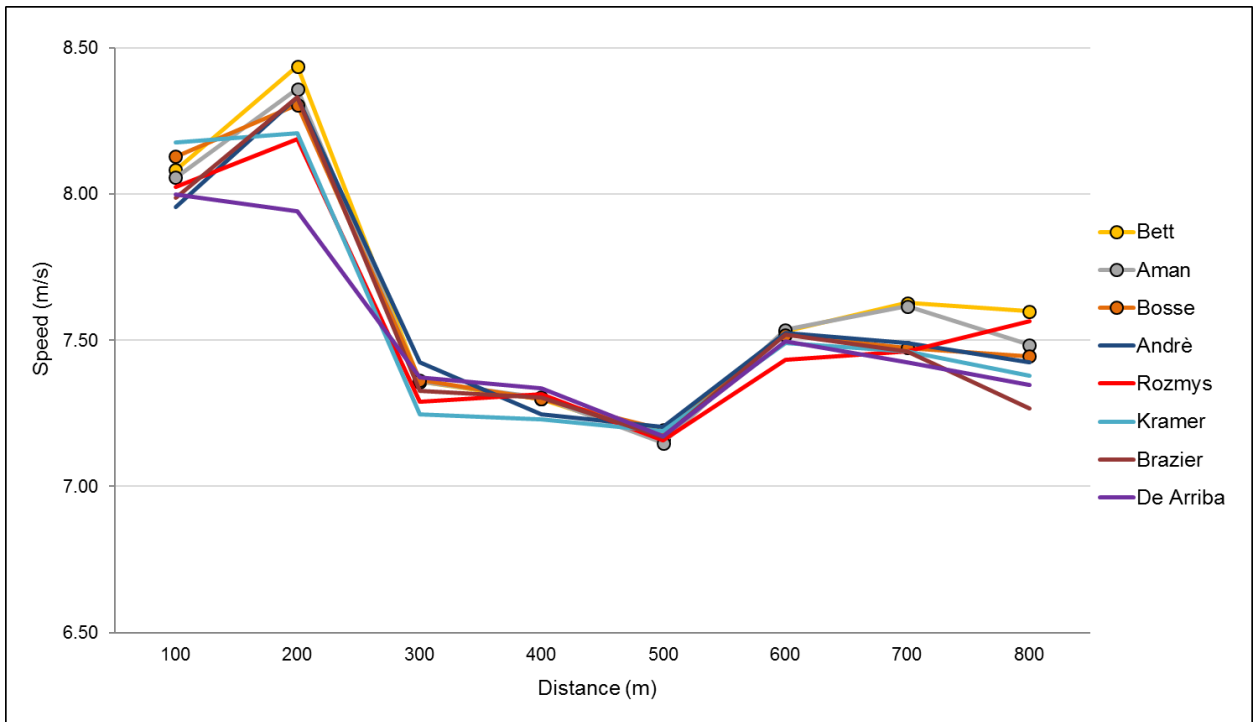


Figure 17. The mean speeds for each 100 m segment for each athlete in Semi-final 3.

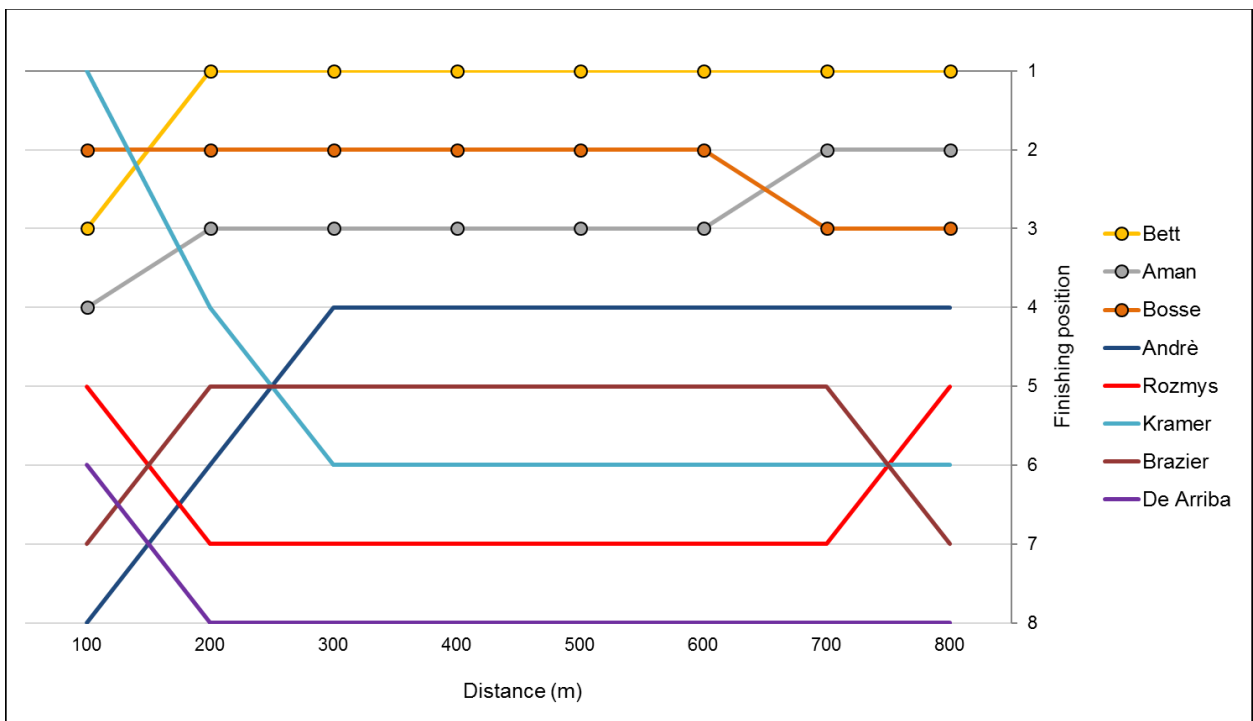


Figure 18. The position of each athlete after each 100 m segment in Semi-final 3.

1126	Bett, Kipyegon (KEN) Q	Posn. 1
------	------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.37	24.22	37.81	51.51	1:05.47	1:18.75	1:31.86	1:45.02
100m	12.37	11.85	13.59	13.70	13.96	13.28	13.11	13.16
400m				51.51				53.51

892	Aman, Mohammed (ETH) Q SB	Posn. 2
-----	---------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.41	24.37	37.96	51.65	1:05.64	1:18.91	1:32.04	1:45.40
100m	12.41	11.96	13.59	13.69	13.99	13.27	13.13	13.36
400m				51.65				53.75

919	Bosse, Pierre-Ambroise (FRA) q	Posn. 3
-----	--------------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.30	24.34	37.92	51.62	1:05.52	1:18.82	1:32.20	1:45.63
100m	12.30	12.04	13.58	13.70	13.90	13.30	13.38	13.43
400m				51.62				54.01

713	Andrè, Thiago (BRA) q	Posn. 4
-----	-----------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.57	24.57	38.04	51.84	1:05.72	1:19.01	1:32.36	1:45.83
100m	12.57	12.00	13.47	13.80	13.88	13.29	13.35	13.47
400m				51.84				53.99

1250	Rozmys, Michal (POL)	Posn. 5
------	----------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.46	24.67	38.39	52.06	1:06.03	1:19.48	1:32.88	1:46.10
100m	12.46	12.21	13.72	13.67	13.97	13.45	13.40	13.22
400m				52.06				54.04

1307	Kramer, Andreas (SWE)	Posn. 6
------	-----------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.23	24.41	38.21	52.04	1:05.95	1:19.30	1:32.70	1:46.25
100m	12.23	12.18	13.80	13.83	13.91	13.35	13.40	13.55
400m				52.04				54.21

1379	Brazier, Donovan (USA)	Posn. 7
------	------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.52	24.52	38.17	51.86	1:05.81	1:19.11	1:32.51	1:46.27
100m	12.52	12.00	13.65	13.69	13.95	13.30	13.40	13.76
400m				51.86				54.41

864	De Arriba, Álvaro (ESP)	Posn. 8
-----	-------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.50	25.09	38.65	52.28	1:06.22	1:19.56	1:33.03	1:46.64
100m	12.50	12.59	13.56	13.63	13.94	13.34	13.47	13.61
400m				52.28				55.36

Final

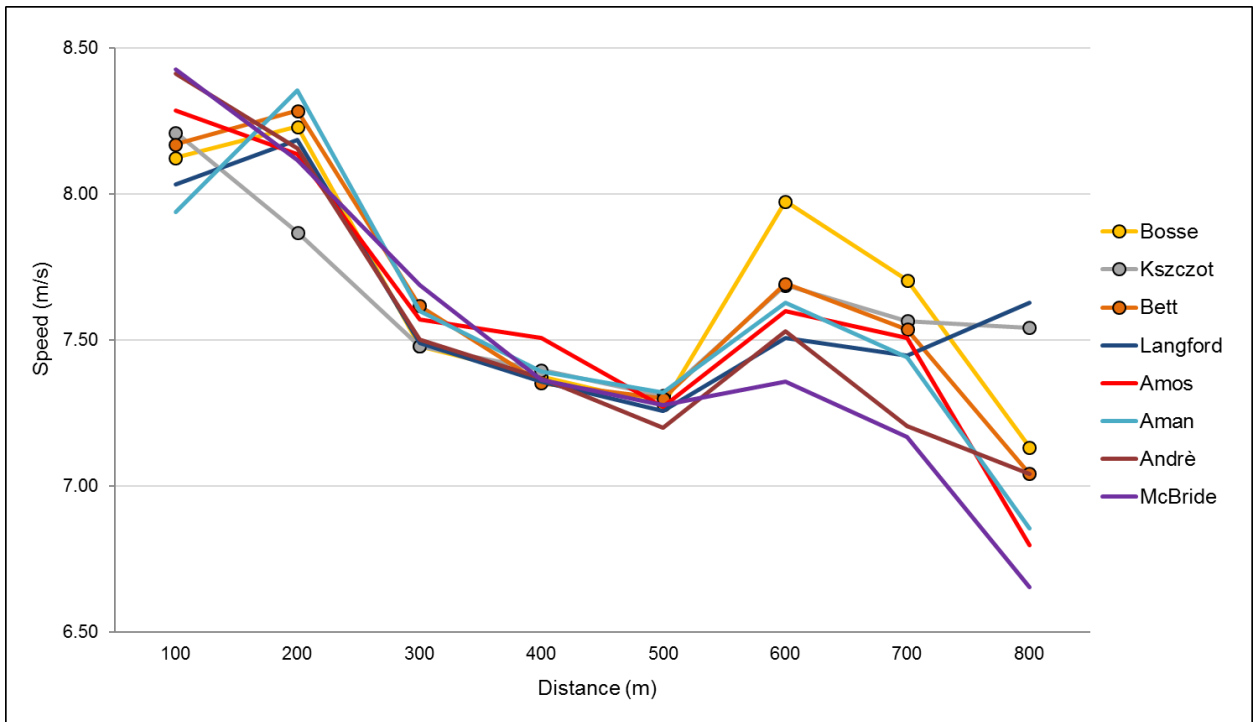


Figure 19. The mean speeds for each 100 m segment for each athlete in the Final.

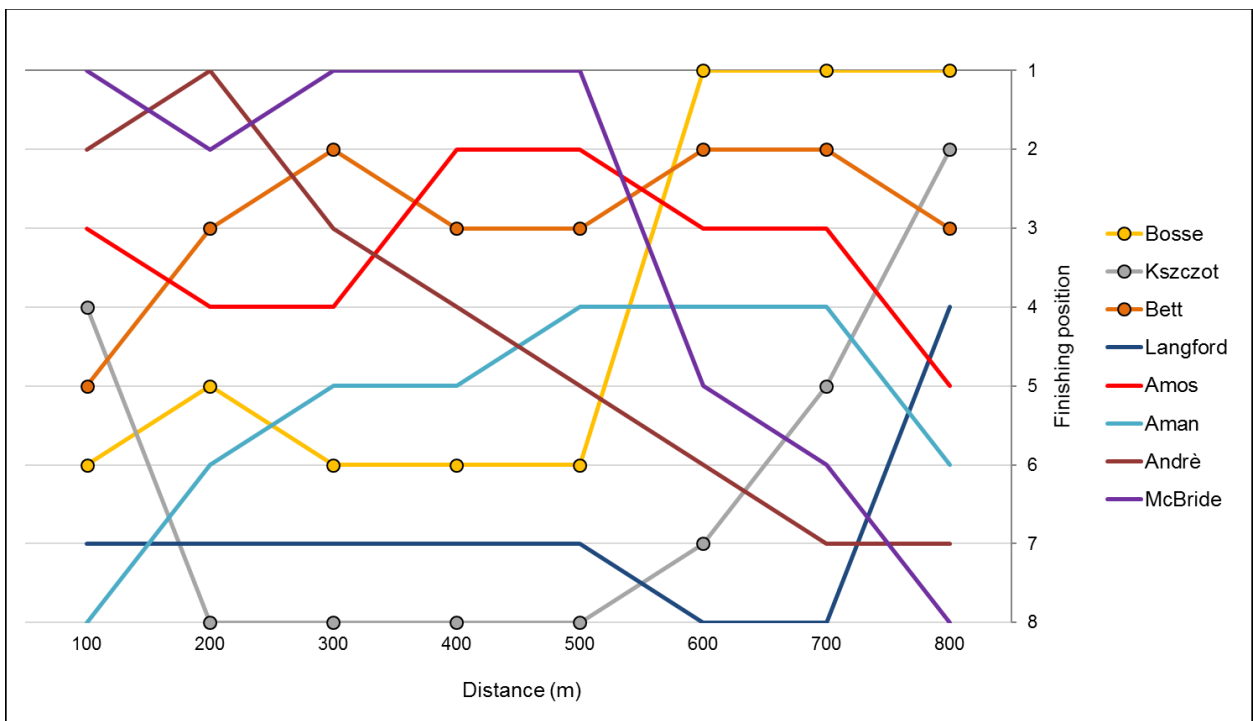


Figure 20. The position of each athlete after each 100 m segment in the Final.

919	Bosse, Pierre-Ambroise (FRA) SB	Posn. 1
-----	---------------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.31	24.46	37.83	51.39	1:05.13	1:17.67	1:30.65	1:44.67
100m	12.31	12.15	13.37	13.56	13.74	12.54	12.98	14.02
400m				51.39				53.28

1244	Kszczot, Adam (POL) SB	Posn. 2
------	------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.18	24.89	38.26	51.78	1:05.46	1:18.47	1:31.69	1:44.95
100m	12.18	12.71	13.37	13.52	13.68	13.01	13.22	13.26
400m				51.78				53.17

1126	Bett, Kipyegon (KEN)	Posn. 3
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.24	24.31	37.44	51.04	1:04.74	1:17.74	1:31.01	1:45.21
100m	12.24	12.07	13.13	13.60	13.70	13.00	13.27	14.20
400m				51.04				54.17

966	Langford, Kyle (GBR) PB	Posn. 4
-----	-------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.45	24.67	38.02	51.61	1:05.39	1:18.71	1:32.14	1:45.25
100m	12.45	12.22	13.35	13.59	13.78	13.32	13.43	13.11
400m				51.61				53.64

707	Amos, Nijel (BOT)	Posn. 5
-----	-------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.07	24.36	37.57	50.89	1:04.64	1:17.80	1:31.12	1:45.83
100m	12.07	12.29	13.21	13.32	13.75	13.16	13.32	14.71
400m				50.89				54.94

892	Aman, Mohammed (ETH)	Posn. 6
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	12.60	24.57	37.73	51.26	1:04.92	1:18.03	1:31.47	1:46.06
100m	12.60	11.97	13.16	13.53	13.66	13.11	13.44	14.59
400m				51.26				54.80

713	Andr�, Thiago (BRA)	Posn. 7
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	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	11.89	24.15	37.48	51.05	1:04.94	1:18.22	1:32.10	1:46.30
100m	11.89	12.26	13.33	13.57	13.89	13.28	13.88	14.20
400m				51.05				55.25

760	McBride, Brandon (CAN)	Posn. 8
-----	------------------------	---------

	100m	200m	300m	400m	500m	600m	700m	800m
Race Time	11.87	24.19	37.20	50.78	1:04.52	1:18.11	1:32.06	1:47.09
100m	11.87	12.32	13.01	13.58	13.74	13.59	13.95	15.03
400m				50.78				56.31

COACH'S COMMENTARY

Very few male athletes exist currently who can be world-class 800 m and 1500 m event specialists, with the men's 800 m event evolving into a unique and specialised middle-distance event of its own. One example of an event specific specialist who has in fact tactically changed the way the race is run at major championships is Kenyan David Rudisha. Almost since his arrival on the international scene in 2009 he has adopted a dominant front-running gun-to-tape style involving a positive pacing strategy (faster first lap than second lap) in major championships (before 2011, seven out of the previous nine global championship 800 m finals were sit and kick affairs, with the second lap being faster¹). Indeed, six out of the last seven major championship 800 m races have involved a faster first lap by 2.2 s (± 1.1) compared with the second lap¹, which mimics world-record pacing tactics more than major championship tactics^{2,3}. This aggressive front running serves to string out the field and limit the number of 'kickers' left in the final phase. This tactic also allows the front runner to run close to the rail and as close to 800 metres as possible, keeping the person out of trouble in the main pack. However, as highlighted in a recent paper, it will be important in the future to better understand the impressive anaerobic and speed qualities now required in world-class 800 m racing (with 100 m segment splits now approaching 11 s flat!), because athletes who are unable to meet the new speed demands of the first lap will be less likely to succeed in this modern approach to 800 m racing¹. However, with many recent 800 m stars out (due to injury or lack of qualification; e.g., Rudisha, Emmanuel Korir, Clayton Murphy, Boris Berian, Taoufik Makhloufi), the 2017 men's 800 m final was wide open.

This hard and aggressive front running tactic has been adopted by others, including Canadian Brandon McBride, who was having a great season and in great championship form in 2017. Indeed, he led his heat (placing 2nd), semi-final (winning) and the final with first lap splits of 51.80, 50.85 and 50.78 s, respectively. Unfortunately, he faded in the final to 8th, but as a 23-year-old, he has a very bright future ahead of him. But, true to recent modern form, and similar to nearly every major championship since 2011, the 2017 final also had a positive pacing tactic with a 50.78 s first lap followed by a 53.28 s lap (for a 2.50 s positive split differential). The winner of this race was France's Pierre-Ambroise Bosse who displayed more even and patient pace judgement (51.30 s followed by 53.28 s), which was probably a product of the fact that he had an interrupted build-up so from a fitness perspective had to lay off the fast early pace; but this did allow him to come home in a relatively small differential.

Of all of the men's and women's middle-distance races, this race featured the most chaotic tactical changes throughout the entire race. These frenzied changes of position were probably a result of the fact that there were no clear favourites, the cooler race conditions and the relatively less experienced field. Accordingly, the race was wide open. Indeed, the athletes 1st and 2nd at the 200 m mark ended up 7th and 8th by the finish and the athletes who finished as gold and silver

medallists were only in 6th and 8th, respectively, at the 500 m mark of the race. The odds of winning (or even medalling) when being 6th and 8th in an 800 m race at the 500 m mark are impressively low⁴, illustrating how well both Bosse and Adam Kszczot (POL) stayed off the fast early pace (especially through 200 m) and did an exceptional job of pacing themselves over the entire race distance. Indeed, Kszczot is a well-respected tactician and known for his finishing speed, and he actually had the tightest lap 1 to lap 2 differential in the entire field (+1.39 s) as well as the lowest (or most even pacing) coefficient of variation (CV) on each of his 100 m split times (3.7%). Interestingly, three out of the top four either had season or personal best times in the final (demonstrating 'performance on demand') and when looking at the lap 1 to lap 2 differential, the top four averaged +2.11 s, whereas the bottom four averaged +4.33 s.

Hometown favourite, Kyle Langford, who is still young in this event and learning optimal pace distribution, was the only athlete to actually accelerate down the homestretch as he had the fastest final 100 m split of 13.11 s, whereas every other runner slowed down over the last 100 m. This impressive last 100 m saw Langford move from 8th to 4th, and narrowly miss a medal by just 0.05 s.

Acknowledgements

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References

1. SANDFORD, G. N.; PEARSON, S.; ALLEN, S. V.; MALCATA, R. M.; KILDING, A. E.; ROSS, A. & LAURSEN, P. B. (2017). Tactical behaviours in men's 800 m Olympic and World Championship medallists: a changing of the guard. *International Journal of Sports Physiology and Performance*; <https://doi.org/10.1123/ijsp.2016-0780>
2. THIEL, C.; FOSTER, C.; BANZER, W. & DE KONING, J. (2012). Pacing in Olympic track races: competitive tactics versus best performance strategy. *Journal of Sports Sciences*; 30(11): 1107-1115.
3. TUCKER, R.; LAMBERT, M. I. & NOAKES, T. D. (2006). An analysis of pacing strategies during men's world-record performances in track athletics. *International Journal of Sports Physiology and Performance*; 1(3): 233-245.
4. RENFREE, A.; MYTTON, G. J.; SKORSKI, S. & ST CLAIR GIBSON, A. (2014). Tactical considerations in the middle-distance running events at the 2012 Olympic Games: a case study. *International Journal of Sports Physiology and Performance*; 9(2): 362-364.

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