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**WORLD CONGRESS ON
SCIENCE & FOOTBALL**

4-7 JUNE | MELBOURNE CONVENTION
AND EXHIBITION CENTRE



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LEEDS BECKETT UNIVERSITY

CARNEGIE SCHOOL OF SPORT

BIGGER, STRONGER, FASTER: THE DIFFERENCES IN PHYSICAL QUALITIES BETWEEN PLAYER DEVELOPMENT GROUP AND ENGLAND ACADEMY PLAYERS IN YOUTH RUGBY UNION

**Padraic J. Phibbs, Dale Read, Cameron Owen, Kevin Till, Mark Atkinson,
Sean Williams, Keith Stokes, Simon Kemp, & Ben Jones**



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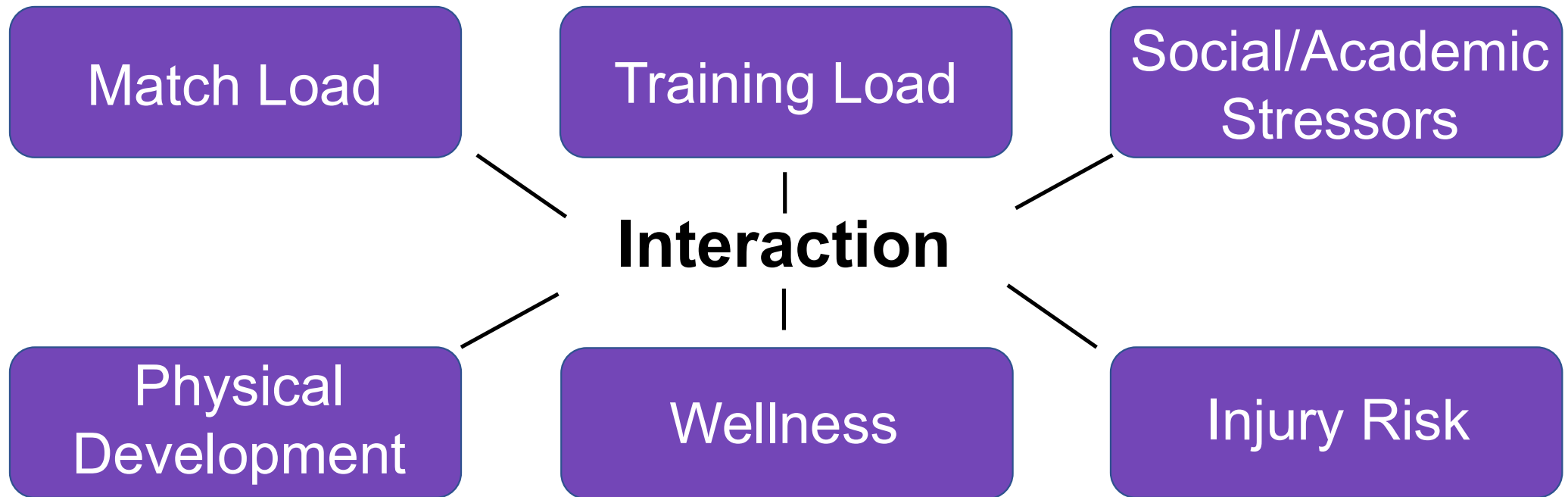


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Talented Developing Player Project





777 Players



1,089 Observations



35 Academy Visits



7,865 km Driven



SARACENS





PDG

”Entry Point to the Academy System for Talent Identified Developing Players”



EAP

”Designation Given to Players Demonstrating the Greatest Potential at Each Age Group”

Senior Academy (18+)

Junior Academy (16-18 years)

Development Squads (15-16 years)

Developing Player Programme (13-16 years)

School & Club Participation

How do Player Development Group
and England Academy Players
Differ in Anthropometric and Physical
Characteristics?



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Talented Developing Player Project



178 U18 Players



359 Observations



EAP

n = 41

17.3 ± 0.6 years



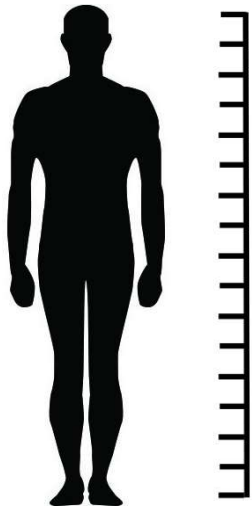
PDG

n = 137

17.4 ± 0.6 years

Likely Trivial





Stature



Body Mass



Body Fat %



CMJ



IMTP



40 m Sprint



30-15 IFT



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**Talented Developing Player Project
Standardised Physical Testing Battery**

Forwards



EAP



PDG

186 ± 4 vs. 183 ± 7 cm

EAP *Almost Certainly* Greater ($d = 0.8 \pm 0.3$)

Backs



EAP

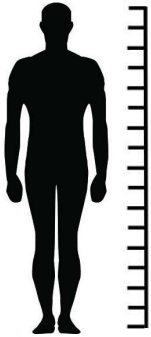


PDG

181 ± 6 vs. 178 ± 6 cm

EAP *Very Likely* Greater ($d = 0.6 \pm 0.4$)

Stature



Body Mass



102 ± 12 vs. 95 ± 12 kg

EAP *Very Likely* Greater ($d = 0.5 \pm 0.3$)

85 ± 12 vs. 79 ± 8 kg

EAP *Likely* Greater ($d = 0.5 \pm 0.3$)

Body Fat %



24 ± 5 vs. 22 ± 7%

EAP *Possibly* Greater ($d = 0.3 \pm 0.3$)

18 ± 4 vs. 17 ± 5%

EAP *Possibly* Greater ($d = 0.2 \pm 0.4$)

Forwards



EAP



PDG

Backs



EAP



PDG



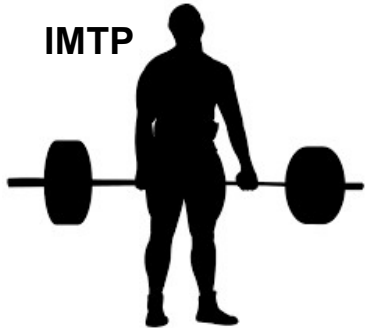
32 ± 5 vs. 34 ± 5 cm

EAP *Possibly Lower* ($d = -0.3 \pm 0.4$)

38 ± 6 vs. 38 ± 6 cm

Unclear ($d = 0.0 \pm 0.4$)

IMTP

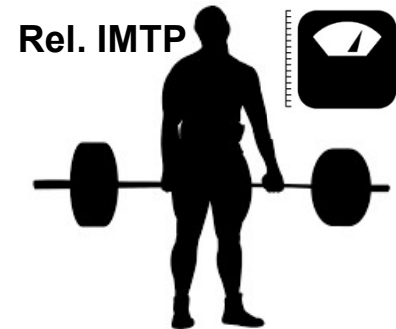


1973 ± 252 vs. 1865 ± 219 N

EAP *Likely Greater* ($d = 0.4 \pm 0.3$)

1764 ± 276 vs. 1664 ± 250 N

EAP *Likely Greater* ($d = 0.4 \pm 0.4$)



Rel. IMTP

20 ± 3 vs. 20 ± 3 N·kg⁻¹

Unclear ($d = 0.1 \pm 0.3$)

21 ± 3 vs. 21 ± 3 N·kg⁻¹

Unclear ($d = 0.1 \pm 0.4$)

Forwards



EAP



PDG

Backs



EAP



PDG

Max Speed



8.1 ± 0.5 vs. 8.2 ± 0.6 m·s⁻¹

EAP *Possibly* Lower ($d = -0.2 \pm 0.4$)

8.8 ± 0.3 vs. 8.6 ± 0.4 m·s⁻¹

EAP *Likely* Greater ($d = 0.4 \pm 0.4$)

10 m Mom



560 ± 53 vs. 524 ± 57 kg·m·s⁻¹

EAP *Very Likely* Greater ($d = 0.7 \pm 0.4$)

486 ± 67 vs. 454 ± 44 kg·m·s⁻¹

EAP *Likely* Greater ($d = 0.5 \pm 0.4$)

30-15 IFT



18.2 ± 1.4 vs. 18.2 ± 1.4 km·h⁻¹

Unclear ($d = 0.0 \pm 0.4$)

19.4 ± 1.0 vs. 19.6 ± 1.1 km·h⁻¹

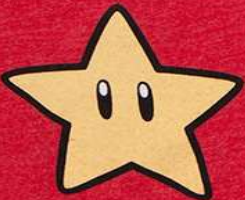
EAP *Possibly* Lower ($d = -0.3 \pm 0.4$)



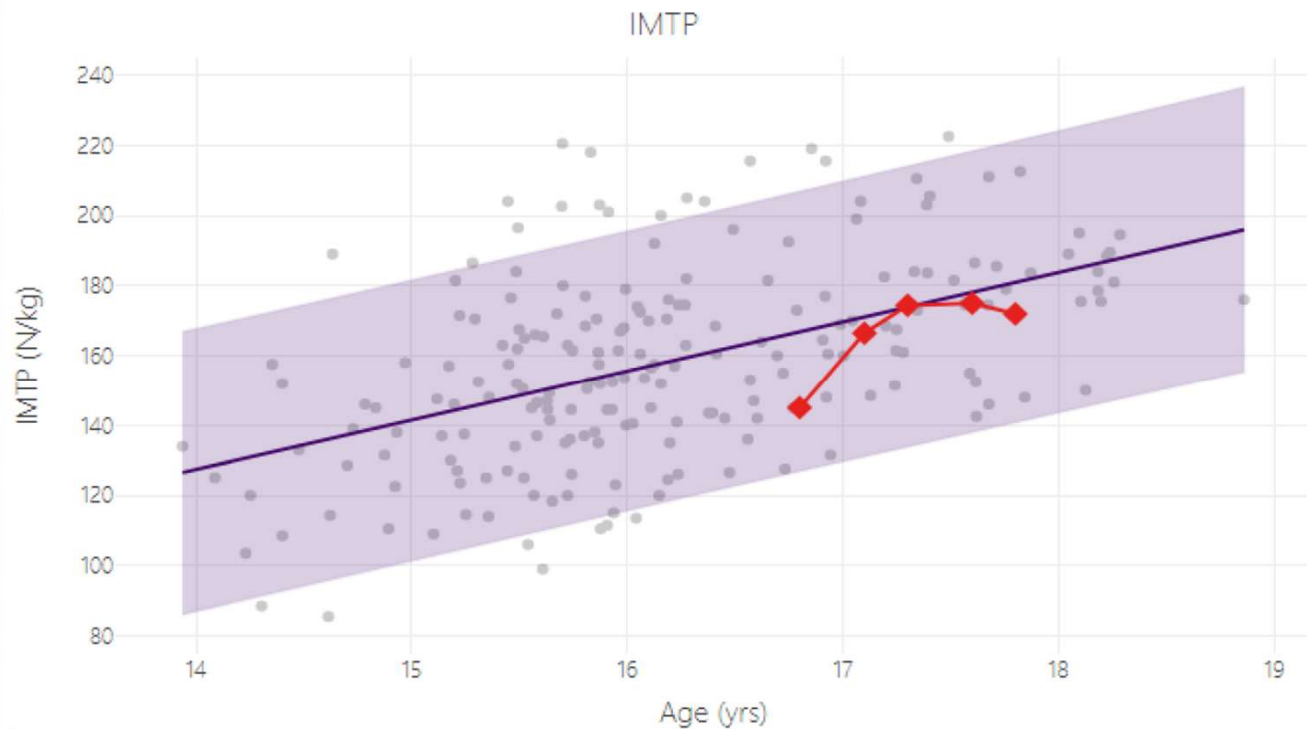
BIGGER



STRONGER



FASTER



Caution





ATTENTION



Carnegie Applied Rugby Research Centre



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Thank you

Any questions?

