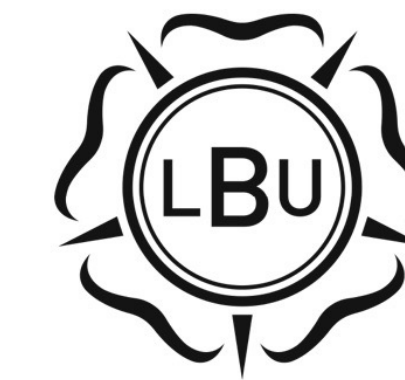


How Can Strength & Conditioning Sessions Improve Athlete Motivation and Performance? A Comparison of In-Season Gym-Based Task Design



LEEDS BECKETT UNIVERSITY
CARNEGIE SCHOOL OF SPORT

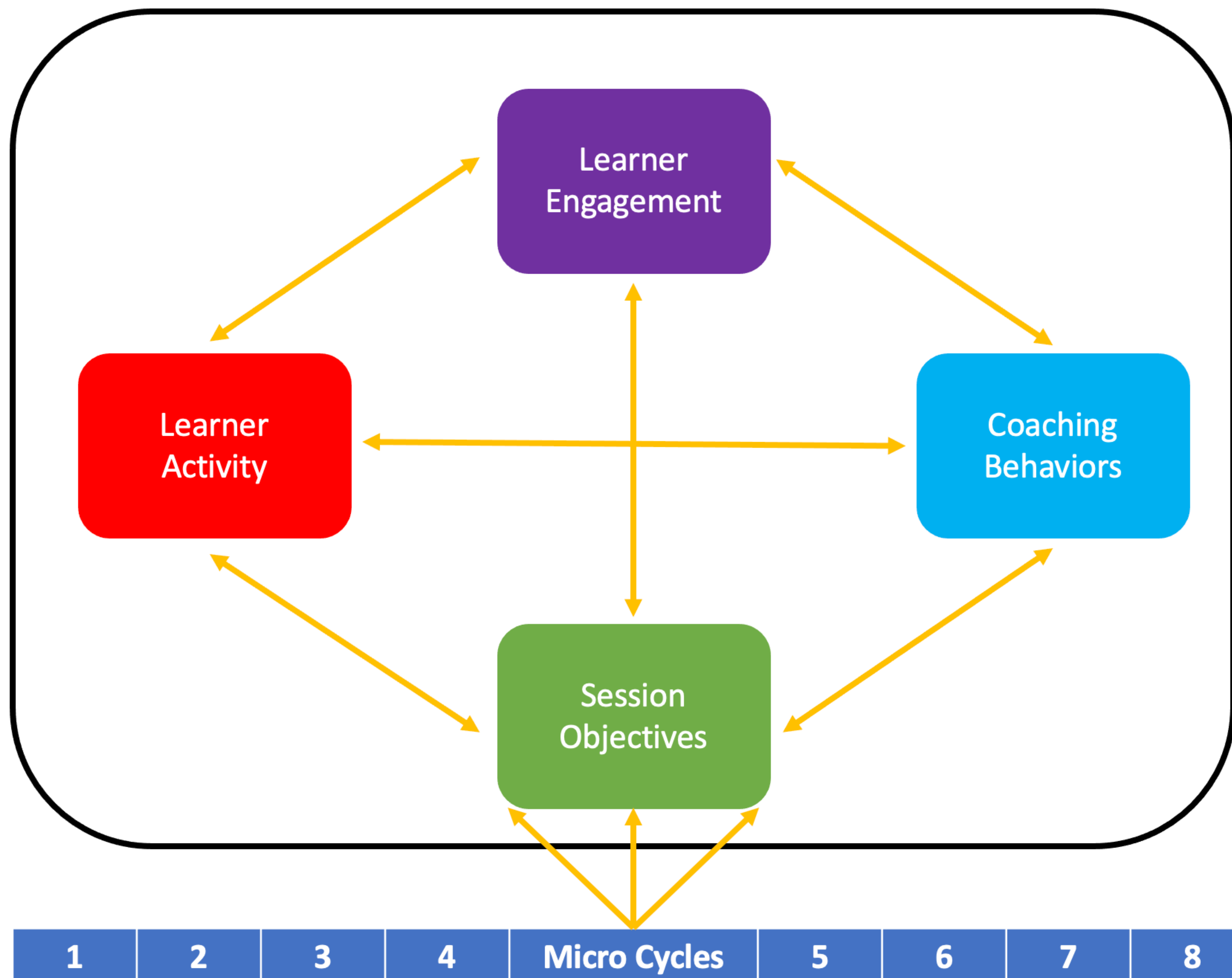
Kevin Shattock, Kevin Till, Thomas Mitchell
Carnegie School of Sport, Leeds Beckett University



LEEDS BECKETT UNIVERSITY
CARNEGIE SCHOOL OF SPORT

INTRODUCTION

- Motivation is a fundamental construct for the precise analysis of the athlete's behaviour, training process, and performance.
- Tasks can differ based on the demands placed on the group and how the group is evaluated.
- Previous studies have noted increases or decreases in motivation can occur solely based on the ways in which tasks are implemented and groups are designed.
- Recent studies (e.g., Abdullah 2016, Gillet 2009, Gómez-López 2013) have shown motivation to be linked to sport performance.
- In fact, as Clancy et al. (2016) reported in their review, motivation is a fundamental construct for the precise analysis of the athlete's behaviour, training process, and performance.
- Therefore, establishing methods that enhance the motivational climate for athletes is important for coaches (Weakley 2017).

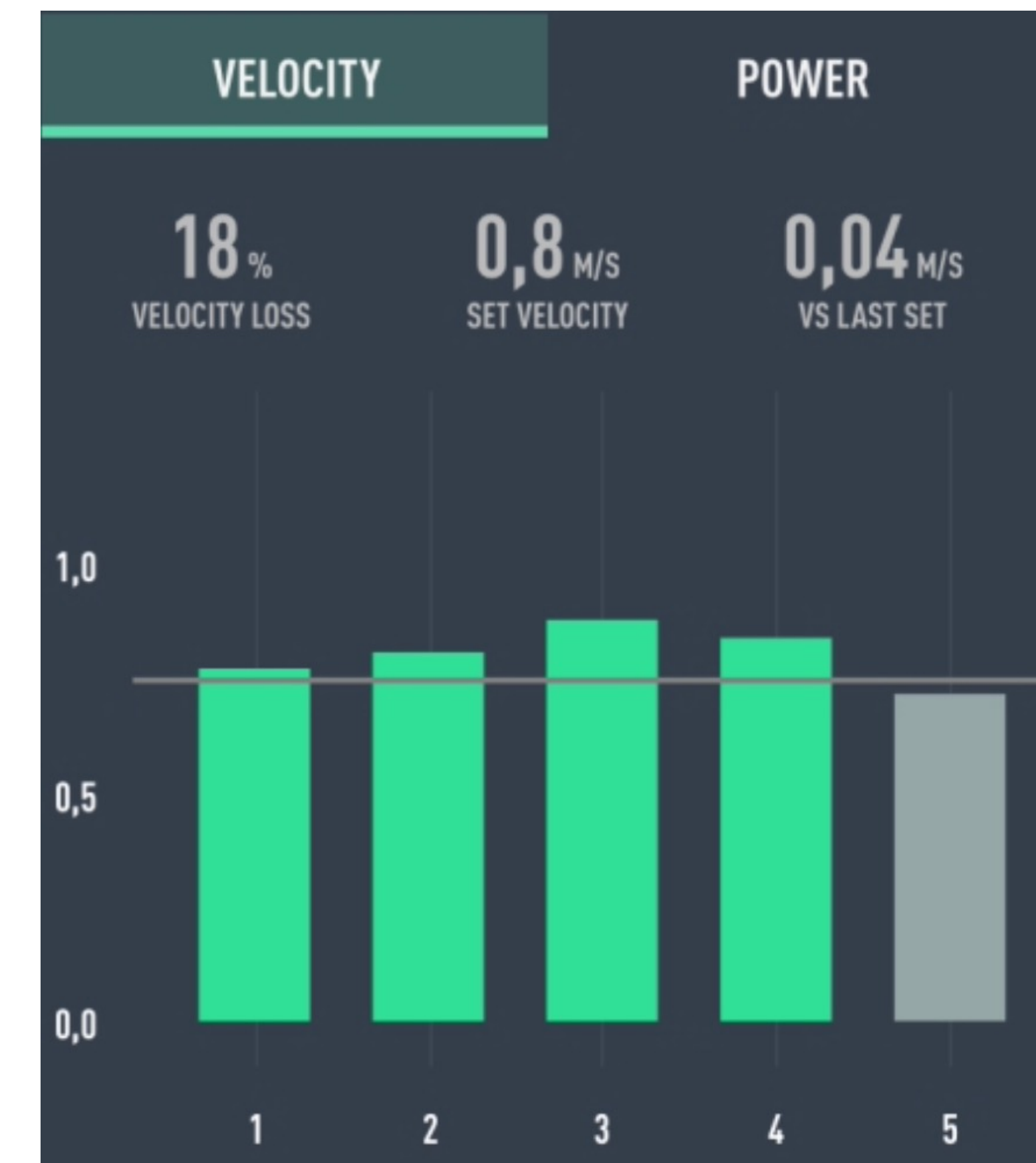


METHODS

A repeated measures design involving six differing session task designs

- working as an individual
- Working as an individual with feedback
- working as a pair
- working as a prescribed pair
- working towards a leader board with no feedback
- working towards a leader board with full transparency).

During each training session, athletes undertook a velocity-based training (VBT) session and were evaluated on the average set velocity (m/s) in the back squat. Furthermore, subjects completed an athlete self-reporting measures questionnaire prior to each session, a differential rate of perceived exertion (dRPE) scale post session, and a motivation for the session survey pre and post training.



RESULTS

Session	Effect Size & Confidence Intervals (Versus Session 1)				Load Lifted (kg)
	Change in Motivation	Impact expectation played on motivation	Impact session design played on motivation	Impact behaviours played on motivation	
1					156.5 ± 23.0
2	3.2 ± 0.7	1.1 ± 0.6	3.4 ± 0.7	2.4 ± 0.7	156.5 ± 23.0
3	1.8 ± 0.6	1.4 ± 0.5	2.0 ± 0.6	1.6 ± 0.6	157.5 ± 22.4
4	3.8 ± 0.8	4.0 ± 1.0	3.8 ± 0.8	4.6 ± 1.2	160.9 ± 23.2
5	0.4 ± 0.5	1.0 ± 0.5	0.4 ± 0.5	1.7 ± 0.6	157.5 ± 22.4
6	3.8 ± 0.8	3.6 ± 0.8	3.8 ± 0.8	4.0 ± 1.0	160.9 ± 23.2

CONCLUSIONS

- Manipulation of task design with an emphasis on feedback and competition leads to an improvement in athlete motivation and performance.
- This research should inform practitioners on the worthiness of planning, delivering, and reflecting upon the psychosocial impacts of the training environment on individual and group performance and motivation.
- Such planning and delivery considerations include;
 - The use of performance feedback
 - Peer to peer interaction / Group and peer organisation
 - Provide autonomy support through task purpose, and feedback that drives performance
 - Cultivate group competition within sessions
 - Make individual performance within group sessions identifiable
 - Offer a range of methodologies to suit individual and group motivations

REFERENCES

Abdullah MR, Musa RM, Maliki A, Kosni NA, Suppiah PK. Role of psychological factors on the performance of elite soccer players. *Journal of Physical Education and Sport*, 16(1), 170–176. 2016

Clancy RB, Herring MP, MacIntyre TE, Campbell MJ. A review of competitive sport motivation research. *Psychology of Sport and Exercise*, 27, 232–242. 2016

Gillet N, Valleraud R, Lafreniere MA. Intrinsic and extrinsic school motivation as a function of age: the mediating role of autonomy support. *Social Psychology Education*. 15: 77 – 95. 2012

Gómez-López M, Granero-Gallegos A, Isorna M. Analysis of psychological factors that affect high athletic performance in kayakers. *Revista Iberoamericana de Diagnóstico y Evaluación*, 1, 57–76. 2013

Jeffreys I. The five minds of the modern strength and conditioning coach. *The challenges for professional development*. *Strength Cond J* 18: 16–21. 2010

Weakley, JJS, Wilson, KM, Till, K, Read, DB, Darrall-Jones, J, Roe, GA, et al. Visual feedback attenuates mean concentric barbell velocity loss, and improves motivation, competitiveness, and perceived workload in male adolescent athletes. *J Strength Cond Res* 2017.

CONTACT

k.shattock7937@student.leedsbeckett.ac.uk