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**Presentation Theme**

Player training and monitoring

**Title**

Giving 'live' GPS feedback to athletes: Does it alter locomotor performance during small-sided games?

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## Introduction

Small-sided games (SSGs) are used to train physical qualities while practicing sport specific skills. Live Global Positioning Systems (GPS) data can provide feedback during these games; however, the impact of feedback on subsequent locomotor performance is unknown. This study aimed to investigate if providing 'live' GPS feedback to players in between bouts of SSGs altered locomotor performance.

## Methods

Using a reverse counterbalanced design, twenty male university rugby players received either feedback or no-feedback (control) during 'off-side' touch rugby SSGs. Eight 5v5, 6x4 minute SSGs were played over four days (2/day) with a 20-minute rest between SSGs and at least 72-hours rest between days. Teams were assigned to feedback (4-games) with verbal feedback provided during a 2-minute between bout rest interval, or no feedback (4-games) for the day. Locomotor performance was measured via a 10 Hz GPS and variables were analysed using a linear mixed model, reported using effect sizes (ES) and 90% confidence intervals and then interpreted via magnitude-based inferences.

## Results

Over the full SSG (6x4 min bouts) there was a *possibly trivial* (ES = 0.15 [-0.03, 0.34]) difference between conditions in total distance (2200 (156) vs. 2177 (186) m). There was also *possibly trivial* (ES = 0.18 [0.00, 0.37]) and *likely trivial* (ES = -0.07 [-0.27, 0.13]) differences between conditions in low- and high-speed distance. Between bouts there was a *possibly* or *likely trivial* (ES = 0.08 to 0.14) difference in total distance for bouts 2, 4, 5 and 6, with *unclear* (ES = -0.01 [-0.24, 0.22]) differences in bout 3. There was a *likely trivial* (ES = 0.11 [-0.01, 0.22]) difference in total distance covered during the first minute of each bout.

## Discussion

In this study, verbal feedback did not alter locomotor performance in rugby players during SSGs. These data suggest that technical and tactical aspects of SSGs might reduce any ergogenic effects of feedback, although it is unknown if the type of feedback provided nullified any potential effects. Furthermore, extrinsic motivating factors such as team success are likely to be perceived as more important than locomotor performance. Future research should endeavour to investigate if these findings are consistent across other forms of feedback, bout durations, football codes, playing levels or training modalities.

## Conclusions

Verbal feedback of distance covered during bouts of SSGs does not alter subsequent locomotor performance.