

# MATCH ANALYSIS IN AFL, SOCCER AND RUGBY UNION: PATTERNS, TRENDS AND SIMILARITIES

Norton, K 1)

1) School of Health Sciences, University of South Australia

Keywords: sport evolution, game structure, player density

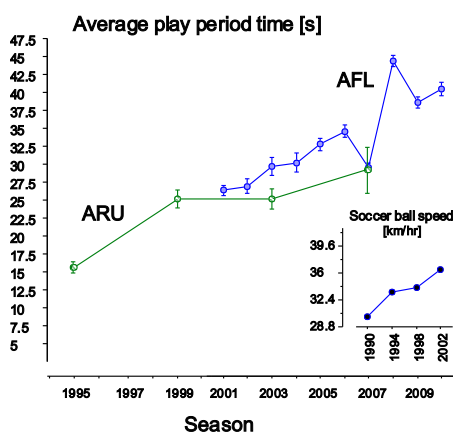
## Introduction

This presentation covers the trends in match analysis involving variables such as game structure [play and stop periods], game statistics and game speed across several decades at the elite level in Australian football [AFL], soccer, and Rugby Union. Much of the change in these sports is similar - suggesting an evolutionary force that is common in these field sports.

## Methods

Player movement was analysed using computer-based tracking software (CBT; TrakPerformance, SportsTec, Australia) and GPS technology. The CBT system relies on tracking skills and use of a drawing tablet connected to a laptop computer.(1) Variables of interest player speed, sprints per minute (> 20km/hr for a duration of >2 s), % of total playing time at sprint speed (>20 km/hr), and the player's game time. Fundamental game statistics were also recorded. Ball tracking analysis allowed the following variables to be determined: game (ball) speed, distance the ball travelled during play periods (m), average number and duration of play and stop periods, and total play and stop time per game (s). Player density was also recorded as the average number of players within 5 m of the ball at any time of the game.

## Results & Discussion



The evolution of sport can be documented through video analysis and quantification of game events, times and distances. It is clear that football games at the elite level continue to evolve in predictable ways when undisturbed by rules changes. The figure illustrates examples of patterns of increasing play period duration in AFL and rugby and increasing speed in soccer.

## Conclusion

There is commonality in the offensive advantage of speed and defensive advantage of increased player density. Moreover, stoppages and key set plays are so critical in most sports that they take up an increasingly large proportion of game time. Finally, even small rule changes can be used to alter game structure such as play and stop periods, speed, physicality and consequently the player types best suited to the game itself.