

## **Kicking in Australian Football – past to present**

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David has been the High-performance Coach at Hawthorn Football Club in the Australian Football League (AFL) for the past eight years and has extensive practical experience in the applications of biomechanics, skill development and game analysis/analytics interventions within an elite professional sport environment. David will explore transition from the application of a reductionist scientific paradigm to one driven by behaviour change. Content will include: Initial attempts to understand kicking skill – application of a purely biomechanical model; Problems with this approach – time for a re-think?; What is being acquired – what is the expertise advantage, what are we coaching?; What does the training environment look like - lessons from the game?; Integration of principles of biomechanics, motor control, game analysis, and psychology in coaching.

**KEY WORDS:** behaviour change, coaching, skill development, game analysis.

This presentation will outline some of the challenges facing sports scientists working within an elite team sporting environment using development of kicking skill in elite AFL players as an exemplar. This presentation will examine the changes in thinking and practice David has experienced over the past 10 years. In broad terms it will explore transition from the application of a reductionist scientific paradigm to one driven by behaviour change. In outlining this change of approach, content will include:

- Initial attempts to understand kicking skill – application of a purely biomechanical model.
- Problems with this approach – time for a re-think?
- What is being acquired – what is the expertise advantage, what are we coaching?
- What does the training environment look like - lessons from the game?
- Integration of principles of biomechanics, motor control, game analysis, and psychology in coaching.

David has been the High-performance Coach at Hawthorn Football Club in the Australian Football League (AFL) for the past eight years and has extensive practical experience in the applications of biomechanics, skill development and game analysis/analytics interventions within an elite professional sport environment. David previously consulted to a number of AFL clubs and worked within with the AIS/AFL program. David has been a strong advocate for rethinking approaches to the coaching and acquisition of kicking skill – in this role he has played a lead role in the development of the philosophy and content of current kicking coaching education approaches at AFL level. David is a regular educator at AFL coaching conferences and also currently advises the AFL kicking working party. Prior to undertaking a coaching role in the AFL David worked at the Australian Institute of Sport in Biomechanics and Performance Analysis for 8 years.