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*THE TALENT SELECTION AND CAREER PROGRESSION OF  
PROFESSIONAL AUSTRALIAN FOOTBALL PLAYERS*

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“Yesterday I was clever, so I wanted to change the world. Today I am wise, so I am changing myself.”

Rumi



## STATEMENT OF CANDIDATE CONTRIBUTION

The contribution of each author to the investigations undertaken as part of the thesis is outlined in Table A below.

**Table A:** Percentage contribution (%) of each author to the investigations conducted during the candidature

Author	Study 1				Study 2				Study 3			
	Courtney Sullivan	Thomas Kempton	Patrick Ward	Aaron Coutts	Courtney Sullivan	Thomas Kempton	Patrick Ward	Aaron Coutts	Courtney Sullivan	Thomas Kempton	Patrick Ward	Aaron Coutts
Research design	50%	25%		25%	50%	10%		40%	20%		40%	40%
Ethics Application	100%				90%			10%	90%			10%
Data collection & preparation	100%				100%				90%		10%	
Statistical analysis	90%	10%			100%				50%		50%	
Manuscript Preparation	100%				100%				100%			
Manuscript feedback			15%	85%			15%	85%			20%	80%
Manuscript Revision	100%				100%				100%			

## PREFACE

This thesis for the degree of Doctor of Philosophy is in the format of published or submitted manuscripts and abides by the 'Procedures for Presentation and Submission of Theses for Higher Degrees – University of Technology Sydney; Policies and Direction of the University'. All manuscripts included in this thesis are closely related in subject matter and form a cohesive research narrative.

Based on the research design and data collected by the candidate, two manuscripts have been submitted for publication and one manuscript has been accepted in peer-reviewed journals. These papers are initially brought together by an *Introduction*, which provides background information, defines the research problem and the aim of each study. A *Literature Review* then follows to provide an overview of talent selection in professional team sport and the career progression of professional team sport athletes. The body of the research is presented in manuscript form (*Chapter Three to Chapter Five*), in a logical sequence following the development of research ideas in this thesis. Each manuscript outlines and discusses the individual methodology and the findings of each study separately. The *General Discussion* chapter provides an interpretation of the collective findings, makes some practical recommendations and acknowledges the limitations from the series of investigations that comprise this thesis. Finally, a *Summary and Recommendations* chapter presents the conclusions from each project and suggests directions for future research to build on the findings of this thesis. The APA 6<sup>th</sup> reference style has been used throughout the document and the reference list is at the end of the thesis.

## ACKNOWLEDGEMENTS

Many people have contributed to the completion of this thesis and I am sincerely thankful to you all.

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## LIST OF ARTICLES SUBMITTED FOR PUBLICATION

- **Sullivan, C.,** Kempton, T., Ward, P., & Coutts, A.J. (2019). The efficacy of talent selection criteria in the Australian Football League. *Journal of Sports Sciences*, *in review*.
- **Sullivan, C.,** Kempton, T., Ward, P., & Coutts, A.J. (2018). Factors associated with early career progression in professional Australian Football players. *Journal of Sports Sciences*, 36(19), 2196-2201.
- **Sullivan, C.,** Kempton, T., Ward, P., & Coutts, A.J. (2019). Career performance trajectories of professional Australian Football players. *Journal of Sports Sciences*, *in review*.

## ABSTRACT

The ultimate goal of professional Australian Football clubs is to achieve team success by consistently winning matches. This is highly dependent upon selecting the best available talent and implementing an effective player development program. Coaching and recruitment staff seek to identify an objective framework of talent selection and career progression to provide evidence for guiding athletic development, assessing program effectiveness and for supporting decisions regarding the playing roster. This thesis contains one literature review and three independent studies which investigate talent selection and the career progression of professional Australian Football players. The literature review summarised previous research investigating talent identification, talent selection and career progression in professional Australian Football. The review identified an abundance of research investigating talent identification through discriminating between competitive levels but far fewer studies examining talent selection and draft order in the Australian Football League (AFL). Furthermore, despite survival and career progression being assessed in other professional team sports, the review identified that there were no studies examining the career of professional Australian Football players beyond selection in the AFL Draft. *Study One* examined the relationship between common talent selection criteria, draft order and future match performance in the AFL. The results questioned the usefulness of Draft Combine physical performance assessments in current talent selection practices however, confirmed the efficacy of Under-18 All Australian team selection as criteria for selecting players with the potential for success in professional Australian Football. *Study Two* investigated the factors associated with early career progression in Australian Football players. This study identified important individual and team based characteristics related to receiving a second contract in professional Australian Football which can be used to inform decisions regarding the playing roster and guide the development of players recently drafted into the league. *Study Three* examined the age-related career performance trajectories of professional Australian Football players. The results showed that professional Australian Football players peak in match performance between 24 and 27 years of age with age having the largest influence on the midfield position and the least on ruckman. This thesis examined the talent selection and career progression of professional Australian Football players. Results demonstrated that age-related changes in the match performance of professional Australian Football players are position specific. Further, it established that while some individual and team based characteristics are associated with early career progression, little of what is objectively available to coaching and recruitment staff prior to the AFL National Draft, displays efficacy in assisting to select athletes with the potential for success. Finally, the efficacy of talent selection criteria can be established by demonstrating their relationship with future match performance.



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## LIST OF ABBREVIATIONS AND ACRONYMS

AFL	Australian Football League
AIC	Akaike information criterion
AUC	Area under the curve
$\beta$	Beta
BMI	Body mass index
$\chi^2$	Chi square
CI	Confidence interval
cm	Centimetre
CV	Coefficient of variation
ES	Effect size
GPS	Global positioning system
ICC	Intraclass correlation coefficient
in	Inch
kg	Kilograms
km·h <sup>-1</sup>	Kilometres per hour
lb	Pound
m	Metre
min	Minute
m·min <sup>-1</sup>	Metres per minute
MLB	Major League Baseball
n	Number
NBA	National Basketball Association
NCAA	National Collegiate Athletic Association
NFL	National Football League
NHL	National Hockey League
OR	Odds ratio
%	Percentage
pr	Probability
RAE	Relative age effect
ROC	Receiver operating characteristic
R <sup>2</sup>	R squared
s	Second
SD	Standard deviation
SWC	Smallest worthwhile change
TDE	Talent development
TID	Talent identification
UTS	University of Technology, Sydney
v	Version
y	Year
yd	Yard

## LIST OF APPENDICES

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