



*Mental toughness in elite football officiating*

SLACK, Liam A.

Available from the Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/17521/>

## A Sheffield Hallam University thesis

This thesis is protected by copyright which belongs to the author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

Please visit <http://shura.shu.ac.uk/17521/> and <http://shura.shu.ac.uk/information.html> for further details about copyright and re-use permissions.

Sheffield Hallam University  
Learning and IT Services  
Collegiate Learning Centre  
Collegiate Crescent Campus  
Sheffield S10 2BP

Thesis No. 839

102 019 791 9



**REFERENCE**

# **Mental Toughness in Elite Football Officiating**

Liam A. Slack

A thesis submitted in partial fulfilment of the requirements of  
Sheffield Hallam University for the degree of Doctor of Philosophy

September, 2013

Life can only be understood backwards; but it must be lived forwards.

- *Soren Kierkegaard* (1813-1855)

This thesis is dedicated to

Julia Beverley Dennison Slack



## *Abstract*

The overall purpose of this Ph.D. thesis was to identify factors underpinning football officiating excellence. As a result, this thesis provided an in-depth study into understanding Mental Toughness (MT) and its development within elite football referees. A secondary purpose was to use the findings of the series of studies contained herein, to bridge the gap between theory and applied practice by providing recommendations for football officiating National Governing Bodies (NGBs), sport psychology consultants, and developing a programme aimed at facilitating officiating excellence and enhancing effective referee development. The aim of the first study of the thesis was to provide an in-depth understanding of football officiating excellence in the context of English Premier League (EPL) refereeing. Specifically, in this study, 15 “Select Group” referees (i.e., a panel of elite football officials governed to referee EPL matches) were interviewed about their perceptions of factors underpinning officiating excellence. Overall, the findings of study one indicated that there was no single dominant factor underpinning football officiating excellence, rather a variety of social (e.g., support networks), physical (e.g., superior physical components), environmental (e.g., opportunities to thrive), and psychological factors (e.g., personal characteristics). In particular, it was clear that EPL referees rely on seven MT attributes (i.e., sport intelligence, achievement striving, tough attitude, high work-ethic, coping with pressure, robust self-belief, and resilience) to deal with the many demands in this elite football environment. Subsequently, this finding enabled a further study to examine MT in this area. Again, using one-to-one interviews, study two explored the same 15 Select Group referees to attain a comprehensive understanding of MT in elite football officiating. Central to this investigation, study two examined situations perceived to require MT in EPL refereeing, as well as the behaviours and cognitions deployed by referees in such situations. Findings revealed that these MT situations converged into five higher-order themes: pre-match situations, during-match situations, post-match situations, general elite refereeing situations, and general-life situations. Throughout these situations, a multifunctional set of adaptive patterns of behaviour (e.g., act as a barrier between players) and cognitive strategies (e.g., awareness of players' emotions) were outlined. Recommendations for the development of MT in football officiating were offered, which together with findings from study one, highlighted the need for the design and implementation of a MT intervention. The purpose of study three was to evaluate the effectiveness of a Mental Toughness Education and Training Programme (MTETP) in English football officiating. Taken together with the pilot study, the findings outlined the effectiveness of a MTETP on MT development and performance, provided a good starting point for future research in an effort to develop more robust MT interventions, and assisted sport psychology consultants who endeavour to enhance MT in football officials. From a theoretical perspective, the findings of this thesis provided a detailed insight into the specific factors underpinning football officiating excellence. In doing so, a comprehensive conceptualisation of MT and its development in the context EPL refereeing was achieved. From an applied perspective, future guidelines for NGBs, coaches, and sport psychology consultancy for the effective integration of MT education and training in elite football officiating were presented.

## **Acknowledgements**

*I received invaluable guidance whilst writing this thesis. My gratitude is extended to my Director of Studies, Prof. Ian Maynard who demonstrated the importance of precision, work-ethic, and professionalism during my adventures as a Ph.D. researcher. Dr. Joanne Butt, too, whose expert supervision made a significant contribution to the overall shape of the thesis and throughout the publication process. I would also like to pay thanks to Dr. Peter Olusoga for his constant source of inspiration and feedback. I owe Ian, Joanne, and Peter a tremendous amount.*

*I sincerely thank Mike Riley (PGMOL - General Manager) and Eddie Wolstenholme (PGMOL – Senior Coach) for their support on this thesis and would like to acknowledge that the cooperation of the Select Group and English Football League referees was of invaluable importance.*

*I've had the support from scholars both home and abroad who were instrumental in my development as a budding Ph.D. student. In particular, I would like to thank Dr. Kim Purdy, Dr. Greg Hooks, and Dr. Nick Watson who encouraged me to replicate my sporting achievements within the academic domain.*

*While the guidance I have received throughout this journey has been vital, I've also had the joy of spending countless hours with a fantastic group of office-mates (Alastair and Sarah). Specifically, I would like to offer notable thanks to Dr. Andrew Mills for his friendship over the last three-and-a-half years.*

*On a personal note, I would not be the person I am today without the support of my family and friends. My thanks are evenly shared to various aunts and cousins, as well as my grandparents. My sister, for being a “sounding-board” during my most challenging times, nice one Nats! Finally, thank you Mum, for your love beyond measure and sacrificing many of your life ambitions, for me to pursue mine – for that, I will be eternally grateful. Undoubtedly, Mum, you are the “mentally toughest” person I know.*

## *Table of Contents*

<b>Abstract</b>	<b>i</b>
<b>Acknowledgements</b>	<b>ii</b>
<b>Table of Contents</b>	<b>iii</b>
<b>List of Figures</b>	<b>viii</b>
<b>List of Tables</b>	<b>x</b>
<b>List of Appendices</b>	<b>xi</b>
<b>Peer-Reviewed Work Related to the Thesis</b>	<b>xiii</b>
<b>Chapter I: Introduction</b>	<b>1</b>
1.1 Performance Excellence	1
1.2 Purpose of the Thesis	3
1.3 Structure of the Thesis	3
1.3.1 Chapter II (Review of Literature)	3
1.3.2 Chapter III (Study One).	4
1.3.3 Chapter IV (Study Two)	4
1.3.4 Chapter V (Pilot Study)	5
1.3.5 Chapter VI (Study Three)	5
1.3.6 Chapter VII (Summary, Discussion, and Conclusions)	6
<b>Chapter II: Review of Literature</b>	<b>7</b>
2.1 Performance Excellence in Sport	7
2.2 Factors Underpinning Athletic Excellence	8
2.3 Psychological Factors Underpinning Athletic Excellence	12
2.4 Elite Sport Officiating Research	19
2.5 Factors Underpinning Sport Officiating Excellence	21
2.6 Factors Underpinning Football Officiating Excellence	24
2.7 Summary and Aims of the Thesis.	29
<b>Chapter III: Study One. Factors Underpinning Football Officiating Excellence: Perceptions of English Premier League Referees</b>	<b>30</b>
3.1 Introduction	30
3.2 Study Purposes	31
3.3 Method	31
3.3.1 Participants	31
3.3.2 Procedure	32
3.3.3 Interview guide	32
3.3.4 Data analysis	33
3.3.5 Trustworthiness criteria	34
3.4 Results	34
3.4.1 Mental Toughness attributes	35
3.4.1.1 Coping with pressure	35
3.4.1.2 Resilience	35
3.4.1.3 Robust self-belief	37
3.4.1.4 Tough attitude.	37
3.4.1.5 Achievement striving	37
3.4.1.6 High work-ethic	38
3.4.1.7 Sport intelligence	38

3.4.2 Support networks and services . . . . .	39
3.4.2.1 Social support . . . . .	39
3.4.2.2 PGMOL support . . . . .	39
3.4.3 Effective game management qualities . . . . .	40
3.4.3.1 Establishing player and manager respect . . . . .	40
3.4.3.2 Effective communication skills . . . . .	40
3.4.3.3 Credible on-field positioning . . . . .	41
3.4.3.4 Decisive decision-making . . . . .	41
3.4.3.5 Match-day officials' team cohesion . . . . .	41
3.4.4 Multifaceted pre-match preparation . . . . .	43
3.4.4.1 Organisational preparation . . . . .	43
3.4.4.2 Physical preparation . . . . .	43
3.4.4.3 Tactical preparation and approach . . . . .	43
3.4.4.4 Technical checks and approach . . . . .	44
3.4.5 Performance-level enhancement . . . . .	44
3.4.5.1 Select Group development . . . . .	44
3.4.5.2 Self-analysis of refereeing performance . . . . .	45
3.4.5.3 Application of performance-aided technology equipment . . . . .	45
3.4.6 Opportunities to thrive . . . . .	45
3.4.6.1 Personal domestic honours . . . . .	47
3.4.6.2 International experience . . . . .	47
3.4.6.3 Extensive referee grounding . . . . .	47
3.4.7 Personal characteristics . . . . .	47
3.4.8 Superior physical components . . . . .	48
3.5 Discussion . . . . .	48
3.5.1 Strengths and limitations . . . . .	51
3.5.2 Applied implications . . . . .	51
3.6 Concluding Remarks . . . . .	53

## **Chapter IV: Study Two. Understanding Mental Toughness in Elite Football Officiating: Perceptions of English Premier**

<b>League Referees . . . . .</b>	<b>54</b>
4.1 Introduction . . . . .	54
4.2 Study Purposes . . . . .	57
4.3 Method . . . . .	58
4.3.1 Participants . . . . .	58
4.3.2 Procedure . . . . .	58
3.3.3 Interview guide . . . . .	58
3.3.4 Data analysis . . . . .	59
3.3.5 Trustworthiness criteria . . . . .	60
4.4 Results . . . . .	60
4.4.1 Competition-specific situations requiring Mental Toughness . . . . .	60
4.4.1.1 Pre-match situations . . . . .	62
4.4.1.2 During-match situations . . . . .	62
4.4.1.3 Post-match situations . . . . .	63
4.4.2 Off-field situations requiring Mental Toughness . . . . .	63
4.4.2.1 General elite refereeing situations . . . . .	64
4.4.2.2 General-life situations . . . . .	66
4.4.3 Mental Toughness behaviours . . . . .	67
4.4.4 Mental Toughness cognitions . . . . .	71

4.5 Discussion . . . . .	74
4.5.1 Applied implications for sport psychology consultants . . . . .	79
4.5.2 Limitations . . . . .	82
4.6 Conclusion . . . . .	82

## **Chapter V: Pilot Study. Development and Preliminary Evaluation of a Mental Toughness Education and Training Programme (MTETP) for English Football Officiating . . . . .**

5.1 Introduction . . . . .	83
5.2 Study Purposes . . . . .	87
5.3 Method . . . . .	87
5.3.1 Participants . . . . .	87
5.3.2 Experimental conditions and procedures . . . . .	88
5.3.2.1 MTETP group . . . . .	88
5.3.2.2 Control group . . . . .	88
5.3.3 Instrumentation . . . . .	88
5.3.3.1 Mental Toughness . . . . .	88
5.3.3.2 Social validation . . . . .	89
5.3.4 Data analysis . . . . .	89
5.4 Results . . . . .	94
5.4.1 Mental Toughness . . . . .	94
5.4.2 Social validation . . . . .	94
5.4.2.1 Aims of the MTETP . . . . .	97
5.4.2.1.1 Mental Toughness education . . . . .	97
5.4.2.1.2 Being mentally tough on and off-field . . . . .	97
5.4.2.2 Structure and procedure of the MTETP . . . . .	100
5.4.2.2.1 Interactive small-group workshops . . . . .	100
5.4.2.2.2 Pre-season workshops . . . . .	100
5.4.2.2.3 “Road-map” goal-setting . . . . .	100
5.4.2.2.4 Mental Toughness profiling . . . . .	101
5.4.2.2.5 “What-if” scenario planning . . . . .	101
5.4.2.2.6 Enhancing positive self-talk . . . . .	104
5.4.2.2.7 Focus and refocus techniques . . . . .	104
5.4.2.3 The MTETP and its impact on performance . . . . .	104
5.4.2.3.1 Increased work-ethic towards training schedule . . . . .	105
5.4.2.3.2 Working physically harder and longer in training . . . . .	105
5.4.2.3.3 Undertaking a professional pre-match approach . . . . .	105
5.4.2.3.4 Transitioning well to level five refereeing . . . . .	108
5.4.2.3.5 Enhanced self-confidence towards refereeing . . . . .	108
5.4.2.3.6 Coping with higher-profile football matches . . . . .	108
5.4.2.3.7 Doing homework on football teams . . . . .	109
5.4.2.3.8 Self-awareness of the emotional temperature of matches . . . . .	109
5.4.2.3.9 Remaining calm and composed during Performance . . . . .	109
5.4.2.3.10 Conveying stronger body language . . . . .	110
5.4.2.3.11 Dealing with player confrontation effectively . . . . .	110
5.4.2.3.12 Parking-up mistakes during a match . . . . .	110
5.4.2.3.13 Not switching-off when making good decisions . . . . .	111
5.4.2.4 Future development of the MTETP . . . . .	111
5.4.2.4.1 Individual MTETP sessions . . . . .	111

5.4.2.4.2 Timing of MTETP during the football season	112
5.4.2.4.3 Video analysis of refereeing performance	112
5.4.2.4.4 Observing and talking to elite-level football referees	113
5.5 Discussion	113
5.5.1 Applied implications for Mental Toughness consultants	115
5.5.2 Limitations and future research	116

## **Chapter VI: Study Three. An Evaluation of a Mental Toughness Education and Training Programme (MTETP) for Early Career English Football League Referees**

6.1 Introduction	118
6.2 Study Purposes	120
6.3 Method	121
6.3.1 Participants	121
6.3.2 Dependent (target) variables	121
6.3.2.1 Sport-general Mental Toughness	121
6.3.2.2 Referee-specific Mental Toughness	122
6.3.2.3 Refereeing performance outcomes	122
6.3.3 Intervention design and procedure	123
6.3.4 Data analysis	128
6.4 Results	130
6.4.1 Sport-general Mental Toughness	130
6.4.1.1 Self-report data	130
6.4.1.2 Coach-report data	130
6.4.2 Referee-specific Mental Toughness	133
6.4.2.1 Mental Toughness attribute scores	133
6.4.2.2 Mental Toughness behaviour scores	133
6.4.2.3 Mental Toughness cognition scores	133
6.4.3 Referee performance outcomes	139
6.4.4 Social validation	139
6.4.4.1 Aims, structure, and content of the MTETP	139
6.4.4.1.1 Self and peer-analysis of performance via video footage	139
6.4.4.1.2 Simulation of on and off-field mentally tough situations	141
6.4.4.1.3 Referee coaching benefits	141
6.4.4.2 The MTETP and its impact on performance	145
6.4.4.2.1 Enhanced post-match self-reflection	145
6.4.4.2.2 Greater refereeing intelligence towards competition	145
6.4.4.2.3 Building self and team confidence pre-match	149
6.4.4.2.4 Refocusing during the half-time period of a match	153
6.4.4.3 Future development of the MTETP	153
6.4.4.3.1 The applied nature of the MTETP	153
6.4.4.3.2 Developing on-field Mental Toughness training	154
6.5 Discussion	154
6.5.1 Applied implications for Mental Toughness consultants	157
6.5.2 Limitations	159
6.6 Conclusion	160

<b>Chapter VII: Summary, Discussion, and Conclusions . . . . .</b>	<b>161</b>
7.1 Introduction . . . . .	161
7.2 Summary . . . . .	161
7.3 Discussion . . . . .	165
7.3.1 Theoretical implications . . . . .	165
7.3.1.1 Factors underpinning football officiating excellence	165
7.3.1.1.1 Role-specific to elite football referees .	166
7.3.1.1.2 Support for previous performance excellence research . . . . .	166
7.3.1.1.3 Demands of modern-day, high-profile football competition . . . . .	167
7.3.1.2 Conceptualisation of Mental Toughness in elite sport	167
7.3.1.2.1 Role-specific situations requiring Mental Toughness in elite football refereeing	168
7.3.1.2.2 Mental Toughness behaviours and cognitions	169
7.3.1.2.3 Temporal and Universal Nature of Mental Toughness and its components .	169
7.3.2 Applied implications . . . . .	171
7.3.2.1 Mental Toughness education and development of football officials . . . . .	171
7.3.2.2 Mental Toughness and football officiating transitions	172
7.3.2.3 Mental Toughness interventions in elite sport .	172
7.3.2.4 Mental Toughness and coach education . . . . .	173
7.3.3 Strengths of the Ph.D. thesis . . . . .	174
7.3.4 Limitations of the Ph.D. thesis . . . . .	176
7.3.5 Recommendations for future research . . . . .	177
7.4 Conclusions . . . . .	179
 <b>References . . . . .</b>	 <b>180</b>
 <b>Word Count . . . . .</b>	 <b>204</b>
 <b>Appendices . . . . .</b>	 <b>205</b>

## *List of Figures*

### **Chapter II**

Figure 2.1 General dimensions of Mental Toughness (Bull et al., 2005)	15
Figure 2.2 Mental Toughness Framework (Jones et al., 2007)	17
Figure 2.3 Cornerstones Model of Refereeing Performance (Mascarenhas et al., 2005)	23

### **Chapter III**

Figure 3.1 Factors perceived to underpin football officiating excellence	36
Figure 3.1 Factors perceived to underpin football officiating excellence (Continued)	42/46

### **Chapter IV**

Figure 4.1 Raw-data, lower-order, and higher-order themes for competition-specific situations perceived to require Mental Toughness in elite football officiating	61
Figure 4.2 Raw-data, lower-order, and higher-order themes for off-field situations perceived to require Mental Toughness in elite football officiating	65
Figure 4.3 Competition-specific situations perceived to require Mental Toughness and the associated MT attributes, behaviours, and cognitions utilised in elite football officiating	68
Figure 4.4 Off-field situations perceived to require Mental Toughness and the associated MT attributes, behaviours, and cognitions utilised in elite football officiating	72
Figure 4.5 Applied Framework of Mental Toughness in Elite Football Officiating	80

### **Chapter V**

Figure 5.1 Mean average scores for Challenge subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group	96
Figure 5.2 Mean average scores for Commitment subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group	98
Figure 5.3 Mean average scores for Control of Emotions subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group	99
Figure 5.4 Mean average scores for Control of Life subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group	102



Figure 5.5 Mean average scores for Confidence in Own Ability subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group . . . . .	103
---	-----

Figure 5.6 Mean average scores for Interpersonal Confidence subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group . . . . .	106
--	-----

Figure 5.7 Mean average scores for Total Mental Toughness of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group	107
---	-----

## **Chapter VI**

Figure 6.1 Mental Toughness attribute scores for Referee A . . . . .	138
Figure 6.2 Mental Toughness attribute scores for Referee B . . . . .	139
Figure 6.3 Mental Toughness attribute scores for Referee C . . . . .	140
Figure 6.4 Mental Toughness behaviour scores for Referee A . . . . .	142
Figure 6.5 Mental Toughness behaviour scores for Referee B . . . . .	143
Figure 6.6 Mental Toughness behaviour scores for Referee C . . . . .	144
Figure 6.7 Mental Toughness cognition scores for Referee A . . . . .	146
Figure 6.8 Mental Toughness cognition scores for Referee B . . . . .	147
Figure 6.9 Mental Toughness cognition scores for Referee C . . . . .	148
Figure 6.10 Match-day assessor performance scores for Referee A . . . . .	150
Figure 6.11 Match-day assessor performance scores for Referee B . . . . .	151
Figure 6.12 Match-day assessor performance scores for Referee C . . . . .	152

## *List of Tables*

### **Chapter V**

Table 5.1 A summary of the Mental Toughness Education and Training Programme (MTETP) . . . . .	89
--	----

Table 5.2 Means ( <i>SD</i> ) and Cronbach's alpha ( $\alpha$ ) values for the six subscales of the MTQ-48 for the MTETP group and control group pre and post-intervention	95
--	----

### **Chapter VI**

Table 6.1 A summary of the Mental Toughness Education and Training Programme (MTETP) delivered to each referee throughout the course of the 2012-2013 English Football League season . . . . .	124
--	-----

Table 6.2 Means ( <i>SD</i> ) for subscales of the Mental Toughness Questionnaire-48 throughout the Mental Toughness Education and Training Programme (MTETP): Difference in Mental Toughness self-reports between the baseline phase and intervention phases for each referee . . . . .	131
--	-----

Table 6.3 Means ( <i>SD</i> ) for subscales of the Mental Toughness Questionnaire-48 throughout the Mental Toughness Education and Training Programme (MTETP): Difference in Mental Toughness coach-reports between the baseline phase and intervention phases for each referee . . . . .	132
---	-----

Table 6.4 Means, mean difference scores, and number of non-overlapping data points (%) across baseline and intervention phases for referee A . . . . .	134
--	-----

Table 6.5 Means, mean difference scores, and number of non-overlapping data points (%) across baseline and intervention phases for referee B . . . . .	135
--	-----

Table 6.6 Means, mean difference scores, and number of non-overlapping data points (%) across baseline and intervention phases for referee C . . . . .	136
--	-----

## *List of Appendices*

<b>Appendix A: Ethics Approval for Study One</b>	<b>206</b>
Application for Ethics Approval of Research.	207
Risk Assessment Pro Forma	215
Participant Information Sheet	217
Informed Consent Form	219
 <b>Appendix B: Semi-Structured Interview Guide for Study One</b>	 <b>221</b>
 <b>Appendix C: Example Transcript of Study One Interviews</b>	 <b>225</b>
 <b>Appendix D: Ethics Approval for Study Two</b>	 <b>240</b>
Application for Ethics Approval of Research.	241
Risk Assessment Pro Forma	247
Participant Information Sheet	249
Informed Consent Form	251
 <b>Appendix E: Semi-Structured Interview Guide for Study Two</b>	 <b>253</b>
 <b>Appendix F: Example Transcript of Study Two Interviews</b>	 <b>257</b>
 <b>Appendix G: Ethics Approval for Pilot Study</b>	 <b>270</b>
Application for Ethics Approval of Research.	271
Risk Assessment Pro Forma	278
Participant Information Sheet	280
Informed Consent Form	282
 <b>Appendix H: Workshop Structure and Content for Pilot Study</b>	 <b>284</b>
Workshop One	285
Workshop Two	287
Workshop Three	288
Workshop Four	289
Workshop Five	292
 <b>Appendix I: Example Transcript of Pilot Study Social Validation                     Questionnaire</b>	 <b>295</b>
 <b>Appendix J: Mental Toughness Questionnaire-48</b>	 <b>301</b>
 <b>Appendix K: SPSS Outputs for Pilot Study</b>	 <b>305</b>
Cronbach's Alpha	306

<b>Appendix L: Ethics Approval for Study Three</b>	<b>338</b>
Application for Ethics Approval of Research.	339
Risk Assessment Pro Forma	347
Participant Information Sheet	349
Informed Consent Form	351
 <b>Appendix M: Workshop Structure and Content for Study Three</b>	 <b>353</b>
Workshop One	354
Workshop Two	357
Preparation for Workshop Three	361
Workshop Three	363
Workshop Four	364
Workshop Five	368
Workshop Six	371
 <b>Appendix N: Example Transcript of Study Three Social Validation Questionnaire</b>	 <b>373</b>
 <b>Appendix O: Referee-Specific Mental Toughness Measure</b>	 <b>377</b>
 <b>Appendix P: Example of Referee Performance Measure</b>	 <b>382</b>
The English Football Association Match-Day Assessor Referee Report	383

## ***Peer Reviewed Work Related to the Thesis***

### **Blind refereed journal article publications**

**Slack, L. A.,** Maynard, I. W., Butt, J., & Olusoga. P. (under review). An evaluation of a Mental Toughness Education and Training Program (MTETP) for early career English Football League referees. *The Sport Psychologist*.

**Slack, L. A.,** Butt, J., Maynard, I. W., & Olusoga. P. (in press). Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees. *Sport and Exercise Psychology Review*.

**Slack, L. A.,** Maynard, I. W., Butt, J., & Olusoga. P. (2013). Factors underpinning football officiating excellence: Perceptions of English Premier League referees. *Journal of Applied Sport Psychology*, 25, 298-315.  
DOI:10.1080/10413200.2012.726935.

### **Blind refereed conference abstract publications**

**Slack, L. A.,** Butt, J., Maynard, I. W., & Olusoga. P. (2012). Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees. *Proceedings of the British Psychological Society Division of Sport and Exercise Psychology Annual Conference*. London, UK.

**Slack, L. A.,** Maynard, I. W., Butt, J., & Olusoga. P. (2011). Factors underpinning elite sport officiating: Perceptions of English Premier League referees. *Proceedings of the 13<sup>th</sup> European Congress of Sport Psychology, FESPAC*, (pg.192). Madeira, Portugal.

### **Blind refereed conference presentations**

**Slack, L. A.,** Maynard, I. W., Butt, J., & Olusoga, P. (accepted). An Evaluation of a Mental Toughness Education and Training Program (MTETP) for Early Career English Football League Referees. Research paper poster to be

presented at the 28<sup>th</sup> *Association for Applied Sport Psychology Annual Conference*. New Orleans, US, 2013.

**Slack, L. A.,** Maynard, I. W., Butt, J., & Olusoga, P. (accepted). Development and preliminary evaluation of a Mental Toughness Education and Training Programme (MTETP) for English football officiating. Association for Applied Sport Psychology. Research paper poster to be presented at the *British Psychological Society Division of Sport and Exercise Psychology Annual Conference*. Manchester, UK, 2013.

**Slack, L. A.,** Butt, J., Maynard, I. W., & Olusoga, P. Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees. British Psychological Society. Research paper poster presented at the *British Psychological Society Annual Conference*. London, UK, 2012.

**Slack, L. A.,** Maynard, I. W., Butt, J., & Olusoga, P. Factors underpinning elite sport officiating: Perceptions of English Premier League football referees. European Federation of Sport Psychology. Oral presentation at the 13<sup>th</sup> *European Congress of Sport Psychology*. Madeira Island, Portugal, 2011.

**Slack, L. A.,** Maynard, I. W., Butt, J., & Olusoga, P. Factors underpinning elite sport officiating: Perceptions of English Premier League football referees. European Federation of Sport Psychology. Research paper poster presented at the 13<sup>th</sup> *European Congress of Sport Psychology*. Madeira Island, Portugal, 2011.

# CHAPTER I

## *Introduction*

### **1.1 Performance Excellence**

A review of the performance excellence literature includes investigations into various world-class performers from a wide range of life domains (e.g., art, music, business, science, education, sport). Central to this literature, seminal work from renowned scholars has acknowledged a host of factors perceived to underpin excellence in these respective professions (Bloom, 1985; Csikszentmihalyi, Rathunde, Whalen, & Wong, 1993; Ericsson, 1996; Jones, 2002). Moving this literature forward, the domain of sporting excellence has been a major line of enquiry over the years. As a result, and discussed in greater detail in Chapter II of this thesis, a comprehensive understanding of factors pertinent to elite athletic performance has been established (e.g., Gould, Dieffenbach, & Moffett, 2002; Greenleaf, Gould, & Dieffenbach, 2001; Jones, Hanton, & Connaughton, 2002).

Given the increasingly competitive, win-at-all-cost culture at the elite-level (Sheard, 2012), there has never been a time where athletes, coaches, and officials are under greater pressure to display performance excellence. These pressures include the magnitude of worldwide media exposure and public attention present in various modern-day sport competitions (e.g., National Football League [NFL] Super Bowl, Federation of International Football Associations [FIFA] World Cup, National Basketball Association [NBA] finals, International Rugby Board [IRB] Rugby World Cup). It comes as no surprise then that sport psychology research has begun to examine elite sport officials who operate within this type of competition (MacMahon & Plessner, 2008). Indeed, emerging research has identified a range of factors contributing to officiating excellence within a variety of team invasion sports such as basketball

(Schweizer, Plessner, & Brand, 2013), ice hockey (e.g., Dorsch & Paskevich, 2007), handball (e.g., Souchon, Cabagno, Traclet, Trouilloud, & Maio, 2009), and rugby football union (e.g., Mascarenhas, Collins, & Mortimer, 2005a). Consequently, elite sport officials are now recognised as “performers” in their own right (Philippe, Vallerand, Andrianarisoa, & Brunel, 2009).

Despite some commonality between factors being reported (e.g., game management, contextual judgement, communication skills, years of experience), it has also been suggested that factors associated with officiating excellence are sport-specific in nature (e.g., Brand, Schmidt, & Schneeloch, 2006; Mascarenhas, Collins, & Mortimer, 2005b). This notion is nowhere more apparent than within elite football (Dickson, 2002). It is clear that whilst the on-field pressures on professional football players continue to grow rapidly (e.g., Gilbourne & Richardson, 2006; Thelwell, Weston, & Greenlees, 2005), so do the performance demands faced by football officials (e.g., Anderson, Wolfson, Neave, & Moss, 2012; Catteeuw, Gilis, Wagemans, & Helsen, 2010; Krustup et al., 2009; Unkelbach & Memmert, 2008). In summary, and discussed in greater detail in Chapter II of this thesis, the literature has provided a starting point in identifying specific factors underpinning football officiating excellence (e.g., Gillis, Weston, Helsen, Junge, & Dvorak, 2006; Catteeuw, Helsen, Gilis, & Wagemans, 2009; Wolfson & Neave, 2007). However, limitations of this knowledge-base include participants not truly officiating in modern-day, elite-level football competition (e.g., Lane, Nevill, Ahmad, & Balmer, 2006), and research designs being prominently experimental and laboratory-based (e.g., Catteeuw, Helsen, Gilis, Van Roie, & Wagemans, 2009). As a result, scant research has employed qualitative lines of enquiry when exploring potentially new factors associated with elite professional football officials.



## **1.2 Purpose of the Ph.D. Thesis**

The central purpose of this thesis was to identify factors underpinning football officiating excellence in the context of English Premier League (EPL) refereeing. It is important to note, the EPL is regarded as one of the most competitive and globally exposed football leagues in the world (Catteeuw, Gilis, Wagemans, et al., 2010). In recent years, sport psychology professionals (i.e., researchers and consultants) have been able to use the performance excellence research to successfully develop education and performance-based programmes that support athletic excellence (e.g., Beauchamp, Harvey, & Beauchamp, 2012; Gordin & Henschen, 2012; Weinberg & Gould, 2010), as well as the development of future athletic talent (e.g., Gucciardi, Gordon, & Dimmock, 2009c; 2009d; Vaeyens, Lenoir, Williams, & Philippaerts, 2008). Therefore, in line with an athletic context (e.g., Gould et al., 2002; Jones et al., 2002), it is anticipated that based on the perceptions of EPL referees, the findings might inform the development an effective programme in an effort to support officiating excellence as well as the development of future talent in football refereeing.

## **1.3 Structure of the Thesis**

Given the importance of a wide range of factors in the attainment of athletic excellence, this thesis explored, in-depth, factors underpinning elite football officiating. Thus, the thesis consists of six further chapters, brief summaries of which are provided below.

### **1.3.1 Chapter II (Review of Literature)**

Chapter II provides a comprehensive review of the factors underpinning athletic excellence. Subsequently, the chapter goes on to identify emerging sport officiating excellence research, and particularly within the context of elite football refereeing. Although this literature has provided a starting point in identifying

factors underpinning football officiating excellence, the chapter critically examines its limitations, areas for future research, and the rationale for the thesis.

### **1.3.2 Chapter III (Study One)**

Study one of the thesis was concerned with gaining an in-depth understanding of football officiating excellence in the context of EPL refereeing. It is important to note, the EPL is regarded as one of the most competitive and globally exposed football leagues in the world (Catteeuw, Gilis, Wagemans, et al., 2010). Specifically, 15 “Select Group” referees (i.e., a panel of elite football officials governed to referee EPL matches) were interviewed about their perceptions of factors underpinning officiating excellence. In this study, Mental Toughness [MT] attributes (e.g., resilience, robust self-belief) emerged as one of the dominant factors perceived to underpin EPL refereeing. Subsequently, this finding enabled a further study to examine MT in this area.

### **1.3.3 Chapter IV (Study Two)**

Chapter IV outlines the second study of the thesis. The findings from study one (Chapter III), along with the discussions in the review of literature (Chapter II) acknowledge that MT attributes are considered a key psychological factor underpinning performance excellence in sport (e.g., Jones et al., 2002). Based on the findings of study one, it seemed essential to attain a comprehensive understanding of MT in elite football officiating. As such, this study used one-to-one in-depth interviews with the same 15 Select Group referees as a method of data collection to examine MT components (i.e., attributes, behaviours, and cognitions). Central to this investigation, study two examined situations perceived to require MT in EPL refereeing, as well as the behaviours and cognitions deployed by referees in such situations. Furthermore, this study identified corresponding behaviours and cognitions with MT attributes (e.g., robust self-belief) from study one. Recommendations for the development of MT in football officiating were offered, which, together with findings from study one,

subsequently informed the design and implementation of a MT intervention (i.e., Chapters V and VI).

### **1.3.4 Chapter V (Pilot Study)**

Chapter V summarises the design, development, and implementation of a MT intervention for English football officiating. The general purpose of this study was to evaluate the efficacy of a Mental Toughness Education and Training Programme (MTETP) on six “investment” English football referees (i.e., level six County referees). Investment referees were targeted because this developmental stage in sport is seen as a critical juncture in the development of MT (e.g., Connaughton, Wadey, Hanton, & Jones, 2008). This study evaluated a programme designed to develop and enhance MT. Each referee was assigned to either a MTETP group or a control group. The MTETP group participated in five, two-hour workshops over an eight week period. During this time, no MT education and training was provided to the control group. An evaluation of the intervention’s effectiveness is outlined in detail in this chapter. As a result, this information led to study three of the thesis by informing the design of a season long intervention aimed at developing MT and enhancing performance in English Football League (EFL) referees. In addition, applied sport psychology guidelines for the integration of MT education and training within English football refereeing were discussed.

### **1.3.5 Chapter VI (Study Three)**

Chapter VI describes the design, continued development, and implementation of a MT intervention for English football officiating. The purpose of study three was to evaluate the effectiveness of a MTETP on three early career EFL referees. Early career EFL referees are a group of first and second year national list (level one) referees appointed by The Football Association (The FA) to officiate matches in the EFL. In essence, early career EFL referees were targeted because this transitional period in

officiating (i.e., intermediate- to elite-level) is seen as a critical juncture that requires specific MT components (Slack, Butt, Maynard, & Olusoga, in press). Each referee participated in four one-to-one workshops and two group-based workshops designed to develop MT and enhance performance. Also, discussions acknowledged the theoretical and practical implications relating to the development of future MTETPs in English football officiating.

### **1.3.6 Chapter VII (Summary, Discussion, and Conclusions)**

Chapter VII of this thesis comprises three sections. First, a summary section provides details of the purposes of the thesis, and an outline of the key findings of the four studies contained within this thesis. Second, the discussion section highlights the theoretical and applied implications, the strengths and limitations of the thesis as a whole, and recommendations for future research. The final section draws together the overall conclusions of the thesis.

## CHAPTER II

### *Review of Literature*

#### **2.1 Performance Excellence in Sport**

With the increasingly competitive, win-at-all-cost culture at the elite-level (Sheard, 2012), there appears to have been a dramatic shift in how the world of professional sport is now governed (Rookwood & Chan, 2011). Concurrent with this global business-like environment, there has never been a time where National Governing Bodies (NGBs), coaches, and athletes are under greater pressure to successfully perform at the highest level in a bid to procure champion status (Sheard, 2012). Accordingly, in pursuit of performance excellence, a multitude of factors are required for athletes to reach the pinnacle of their sport (e.g., Greenleaf et al., 2001). Central to this pursuit, sport psychology research has predominately focused on the physical, technical, tactical, and psychological factors underpinning athletic excellence (see Gould & Maynard, 2009, for a review).

The identification of these various factors is due, in part, to the demands of modern-day sport competition (Jones et al., 2002). With this in mind, research has begun to examine other sporting personnel beyond elite "professional" athletes who also operate within this environment. For example, studies have investigated elite coaches (e.g., Carter & Bloom, 2009), elite youth-level athletes (Holt & Dunn, 2004), Paralympic athletes (Martin, 2012), and elite sport officials (Mascarenhas et al., 2005a). Once deemed non-performing members of sport organisations (Woodman & Hardy, 2001), research has now recognised these individuals as performers in their own right (e.g., Olusoga, Butt, Maynard, & Hays, 2010; Philippe et al., 2009). In particular, emerging research has identified a range of factors contributing to officiating excellence within a variety of team invasion sports (e.g., Dorsch & Paskevich, 2007; Souchon et al.,

2009). To this end, a central purpose of this thesis is to build on this line of enquiry by identifying factors underpinning elite English football officiating.

In summary, sport psychology consultants are now working with elite-level athletes, and a variety of other key performers within professional sport, to assist in the pursuit of performance excellence (Nevill, Atkinson, & Hughes, 2008). It is important to note, however, that this research has been primarily used to successfully develop specific programmes that support current excellence and the development of future talent within an athletic context (e.g., Gould & Eklund, 2007).

## **2.2 Factors Underpinning Athletic Excellence**

Sport psychology research spanning well over five decades has provided a comprehensive understanding of factors pertinent to elite athletic performance (e.g., Cattell, 1957; Gould, Hodge, Peterson, & Petlichkoff, 1987; Morgan, 1979; Robazza & Bortoli, 1998; Williams & Krane, 1998; 2001). Indeed, some of the early literature in this area focused on exploring factors associated with Olympic athletes (e.g., Gould, Weiss, & Weinberg, 1981; Mahoney & Avenier, 1977; Mahoney, Gabriel, & Perkins, 1987). For example, Orlick and Partington (1988) examined factors associated with performance excellence in athletes participating in the 1984 Summer and Winter Olympic Games. Participants were 75 Canadian athletes from a multitude of Olympic disciplines. One-to-one interviews were conducted with each participant using a semi-structured interview guide. Following qualitative data analysis procedures, results identified a host of factors associated with optimal Olympic performance. Notably, the application of imagery, clear daily goals, and greater levels of concentration all emerged as significant factors in attaining performance excellence.

Further, Gould, Eklund, and Jackson (1992a) explored performance excellence within Olympic wrestling via a two-part investigation. The first study examined preparation strategies as well as precompetitive cognition and affect within the 1988 US

Olympic wrestling team. Twenty Olympians, of which six were Olympic medallists, were individually interviewed at length and asked to reflect upon their best, worse, and most crucial performances prior to the Olympic Games. Following recommendations from Scanlan, Ravizza, and Stein (1989), an eight-step process in which both inductive and deductive data analysis procedures were employed. Emerging from the interviews, findings highlighted a host of best-match optimal mental states and preparation strategies including positive expectations (e.g., focused on personal strengths), heightened arousal-intensity (e.g., felt no pressure towards performance), and motivational tactics (e.g., drawing inspiration from the Olympic song). In their second study, Gould, Eklund, and Jackson (1992b) adopted similar qualitative methods in an attempt to explore the thoughts and affect states of Olympic wrestlers during competition. Again, participants were asked to reflect upon their best, worse, and most crucial performances during the Olympic Games as well as their career best performance. Emerging from the content analysis, best-match cognitions were comprised of three optimal mental states that included total concentration (e.g., totally focused on opponent/match at hand), intensity (e.g., found a reason to win), and confidence (e.g., felt opponent breaking/tire in match).

In an attempt to move the performance excellence literature forward, studies moved beyond investigating the perceptions of athletes who had participated at the games, and instead focused on athletes who had achieved Olympic success. In particular, Gould, Jackson, and Finch (1993) investigated 17 US figure skaters who all had held National titles between 1985 and 1990. As such, the aims of this study were to identify the positive and negative experiences associated with being a National Champion athlete. After in-depth semi-structured interviews were conducted, a six-step content analysis procedure was implemented. As a result, findings identified numerous positive factors associated with performance excellence and included positive emotional experiences (e.g., winning the National title was a dream come true), positive effects on self-esteem

(e.g., an honour to be the National Champion of your country), and positive growth in self-awareness from losing the National title (e.g., a freer feeling to be chasing the National title again. In contrast, a constellation of negative factors were also identified and consisted of "top dog" pressures (e.g., everything to lose, nothing to gain), external obligations (e.g., more demands on your time), and pressures to continually produce a better performance (e.g., always another goal to go for).

In addition, Vernacchia, McGuire, Reardon, and Templin (2000) examined psychological and social factors underpinning Olympic excellence in track-and-field athletes. Fifteen Olympians including a World Record holder, four medallists, three National Record holders, and seven National Champions were individually interviewed. Results were inductively and deductively content analysed and highlighted salient factors that included mental qualities (e.g., Mental Toughness), socio-economic factors (e.g., financial support), and spiritual and religious factors (e.g., use of prayer). Taken together, extensive research studies have indicated that specific technical, tactical, psychological, and physical factors characterise athletic excellence. Furthermore, findings also suggest that successful athletes are also placed under greater performance pressures to procure champion status (e.g., hard to defend National title because of injury, stress due to major life changes after becoming the champion, became a champion at a very young age).

It comes as no surprise then that researchers have examined the differences between successful and unsuccessful Olympic athletes and teams in a bid to gain a greater awareness of factors that underpin performance excellence. Supporting this line of research, Gould, Guinan, Greenleaf, Medbery, and Peterson (1999) examined psychological, social, environmental, and physical factors perceived to affect Olympic performance. Eight US Olympic teams were investigated, four of which had exceeded performance expectations and four of which had failed to live up to performance expectations. A structured interview guide was implemented, with specific questions



addressing factors perceived to influence performance at the 1996 Olympic Games.

Content analysis of the interview transcripts revealed that team training, crowd support, and commitment were all factors perceived to influence successful performance.

Conversely, unsuccessful teams indicated that a lack of experience, travel problems, and lack of team cohesion were all factors involved when failing to meet Olympic expectations. Extending this line of research, Greenleaf et al. (2001) interviewed 15 athletes to gain a greater understanding of factors perceived to have positively and negatively affected Olympic performance. In doing so, results identified a wide range of factors underpinning performance excellence and included mental and physical preparation, supportive social networks, and Olympic housing. Furthermore, factors perceived to negatively influence Olympic performance consisted of the removal from normal routine, coach problems, and media distractions.

In summary, a substantial knowledge-base has now accumulated pertaining to the identification of a wide range of factors that play an important role in the attainment of athletic excellence (e.g., high levels of concentration, positive expectations about performance, confidence, training environment, social support, multifaceted preparation, financial support). Supplementing these findings, Gould et al. (1999) concluded that notable psychological, social, environmental, and physical factors are inextricably linked and work together in a complex process in the pursuit of Olympic excellence. However, with very little separating athletes with regards to physical, technical, and tactical capabilities, academics have indicated that psychological factors might be the decisive element in achieving superior athletic performance (e.g., Greenleaf et al., 2001). As a result, and since the turn of the new millennium, a notable surge in research activity has been evident which has attempted to further understand the role of psychological factors in this area.

## **2.3 Psychological Factors Underpinning Athletic Excellence**

Gould et al. (2002) explored psychological factors in 10 US Olympic medallists representing various disciplines (e.g., skiing, swimming, ice hockey). Each athlete was individually interviewed along with a parent, guardian, or significant other. Results identified eight general psychological factors perceived to underpin performance excellence and included personality characteristics (e.g., intelligence), motivational issues and orientations (e.g., highly driven to please others), performance enhancement skills (e.g., Mental Toughness), and handling of adversity (e.g., ability to deal with anxiety). Furthermore, when exploring the psychological factors influencing the development of athletes, six categories were identified (i.e., community, family, self-development, non-sporting personnel, sport environment personnel, and the sport process). In a similar study, Durand-Bush and Salmela (2002) examined psychological factors contributing to the development and maintenance of Olympic champions. Ten Olympians having won two separate gold medals at the Olympic Games and/or World Championships were interviewed using a semi-structured guide. Following data analysis procedures (Cote, Salmela, Baria, & Russell, 1993), results specified that on the way to procuring gold medal status, athletes perceived self-talk, emotional regulation, and self-awareness to be factors that contributed to optimal athletic performance. In preserving Olympic and/or World Champion status, athletes also expressed the need to be creative and innovative when structuring training programmes in an attempt to keep motivational levels high.

Contributing to this recent surge of research activity, considerable attention has been given to the construct of MT, recognised as one of the most essential psychological factors in attaining performance excellence (Jones et al., 2002). Indeed, the aforementioned research has acknowledged MT as a salient factor (e.g., Gould et al., 2002; Vernacchia et al., 2000). Moreover, given the modern-day sporting environment, coaches, media outlets, and sports analysts have consistently acknowledged MT as the

difference between “making it” and “not making it”, “winning” and “losing”, and separating the “elite” from the “super-elite” (Kitson, 2013). As such, Crust (2007) suggested that this surge of MT research was warranted given the increasing number of sporting personnel linking MT to superior athletic performance.

However, preceding Jones and colleagues' seminal investigations (Jones et al., 2002, 2007), the MT knowledge-base had remained relatively descriptive, equivocal, and deficient in empirical research procedure (see Connaughton, Hanton, Jones, & Wadey, 2008, for a review). Consequently, during a period that stretched over half a century, MT was regarded as an all-encompassing term associated with a host of positive psychological attributes and varying definitions (e.g., Alderman, 1974; Bull, Albinson, & Shambrook, 1996; Fourie & Potgieter, 2001; Goldberg, 1998; Loehr, 1982). It is important to note, scholars have since indicated that this early understanding of MT has led to confusion rather than consensual clarity within this area (e.g., Jones et al., 2002; Gucciardi, Gordon, & Dimmock, 2008). Nonetheless, these previous endeavours investigating MT did provide a starting point and potential avenues for researchers to explore in an effort to further enhance this knowledge-base.

Addressing this contention, Jones et al. (2002) provided greater theoretical rigour and conceptual clarity of MT when drawing upon the scientific framework of Personal Construct Psychology (PCP; Kelly, 1955; 1991). At this point, research studies were concerned with defining and identifying the psychological attributes underpinning “mentally tough” athletes. Thus, Jones et al. (2002) conducted a pioneering study with elite athletes that represented a wide range of sports (e.g., rugby union, golf, netball). The study aimed to identify essential MT attributes as well as providing a clearer definition of MT within sport. A qualitative approach was implemented to gain the subjective accounts of 10 international athletes. Sampling criteria included the achievement of full international honours and an average of five years of experience at the elite-level.

Individual interviews and focus-groups were deemed the most appropriate method for data collection from which a concise definition was developed (Jones et al., 2002, pg. 209):

Mental toughness is having the natural or developed psychological edge that enables you to: generally, cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on the performer. And, specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure.

In addition, findings identified 12 key MT attributes and that were subsequently ranked in order of significance. The top three ranked comprised: (1) having an unshakable belief in one's ability in achieving goals, (2) bouncing-back from setbacks as a result of increased determination to succeed, and, (3) having an unshakable belief that one has qualities and abilities superior to opponents.

Under the recommendations and procedures proposed by Jones et al. (2002), additional understanding of MT was explored in various mainstream sports. Notably, Bull, Shambrook, James, and Brooks (2005) characterised MT as a decisive component in modern-day international cricket when investigating the perceptions of elite-level cricketers. When drawing upon 101 cricket coaches from within the England and Wales Cricket Board (ECB), a list of the 10 most mentally toughest cricketers spanning two decades (i.e., 1980s and 1990s) was assembled. In accordance, self-managed focus-group interviews were held with cricketers considered to be mentally tough. Results identified five factors underpinning MT that included developmental factors, dedication and commitment, coping with pressure, belief, and personal responsibility. Central to these findings, all five factors were placed within a MT framework that consisted of four general dimensions: tough attitudes, tough character, tough thinking, and environmental influence (see Figure 2.1).

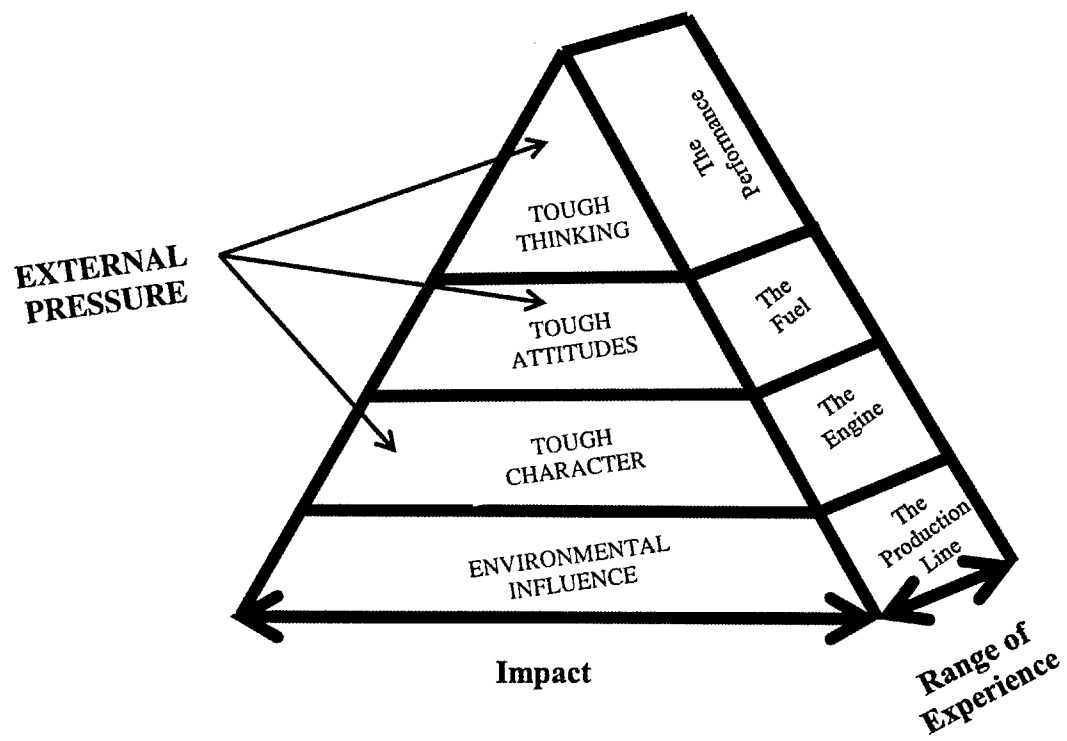


Figure 2.1 General dimensions of Mental Toughness (Bull et al., 2005).

Furthermore, Thelwell et al. (2005) provided an understanding of MT in the context of elite football. The study aimed to address the MT definition proposed by Jones et al. (2002) as well as identify salient attributes characterising mentally tough football players. Semi-structured interviews were conducted on six professional players who had all achieved full international recognition. In line with Jones et al.'s findings, the definition of MT altered slightly in that they deemed football players should "always" cope better than their counterparts in respect of the demands of the game. With both definitions similar in nature, it provides a clearer conceptualisation as to a definition of MT in sport. The study also identified 10 MT attributes required to become a mentally tough football player. These 10 MT attributes were ranked in order of importance, the top three being: (1) having total self-belief at all times, (2) wanting the ball at all times, and, (3) having the ability to react to situations positively.

In a second study, Jones et al. (2007) interviewed eight "super-elite" athletes who had previously won at least one Olympic or World gold medal, with an average of six years of international experience between them. Three coaches and four sport psychologists were also interviewed in an effort to triangulate the findings, thus, develop a holistic understanding of MT. While further support was provided for Jones et al.'s (2002) MT definition, this super-elite group identified 30 MT attributes compared to the 12 attributes identified by the elite group. Inductive thematic analysis was conducted in which all 30 attributes were then clustered into 13 subcomponents (e.g., belief, focus, using long-term goals as the source of motivation, controlling the environment, handling failure). Participants also ranked the 30 MT attributes in order of importance within a proposed MT framework. The Mental Toughness Framework consisted of four dimensions and comprised attitude/mind-set, training, competition, and post-competition (see Figure 2.2). As a result, this framework extended the MT literature by providing a temporal foundation of the specific utilisation of MT attributes in sport.

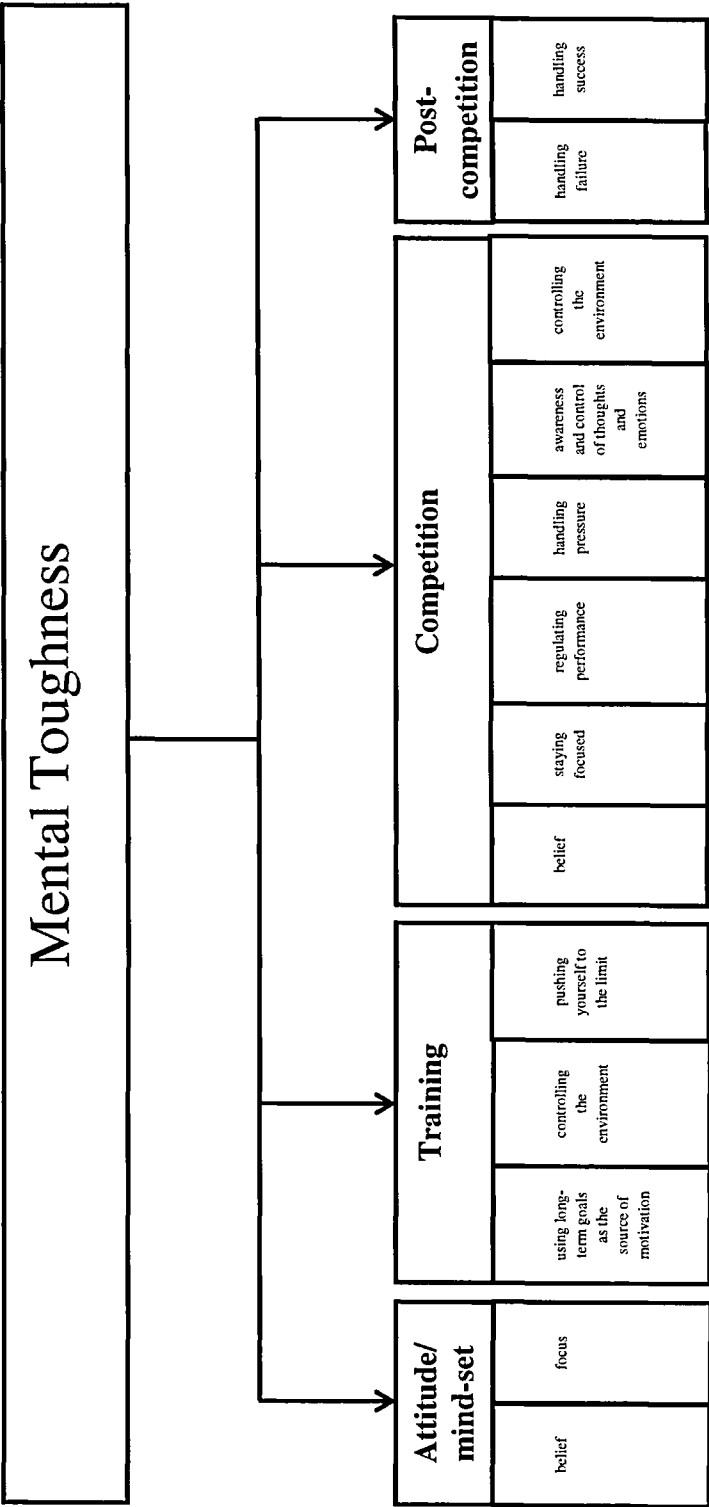


Figure 2.2 Mental Toughness Framework (Jones et al., 2007).

Contributing further to this research, Gucciardi et al. (2008) comprehensively investigated MT in the context of Australian rules football. The PCP framework (Kelly, 1955; 1991), prescribed previously by Jones et al. (2002), was utilised to gain an understanding of MT in 11 elite-level coaches. Data analysis procedures adopted a grounded theory approach following recommendations from Strauss and Corbin (1998). As a result, findings highlighted 11 MT attributes that were similar to qualities previously reported (e.g., Jones et al., 2002), with the exception of emotional resilience, sport intelligence, and physical toughness which were deemed unique to the study. Supplementing this comprehensive understanding of MT in Australian rules football, a MT definition was also developed (Gucciardi et al., 2008, pg. 278):

Mental Toughness in Australian [rules] football is a collection of values, attitudes, behaviours, and emotions that enable you to persevere and overcome any obstacle, adversity, or pressure experienced, but also to maintain concentration and motivation when things are going well to consistently achieve your goals.

As opposed to Jones et al.'s (2002) definition placing MT at the expense of others, this definition leant towards conceptualising MT as various components (e.g., behaviours, emotions) that enable athletes to deal effectively with both negative and challenging competitive situations.

Collectively, this body of MT research highlights a consistent overlapping of MT attributes (e.g., success mind-set, resilience, handle challenge, context intelligence) across mainstream sports and generic athletic domains (e.g., Bull et al., 2005; Gucciardi et al., 2008; Jones et al., 2002; Thelwell et al., 2005). As such, MT is now deemed common language within the performance excellence literature. Moreover, scholars have acknowledged that there still remains value in employing both sport-general and sport-specific investigations in further understanding this construct in elite sport (Gucciardi & Gordon, 2011). However, a limitation concerning this current literature is that it is still relatively representative of the athletic domain. Indeed, Crust (2008) called



for further MT research to examine performers in a range of sporting contexts in an effort to gain additional conceptual understanding of MT.

Collectively, this comprehensive review of the performance excellence literature demonstrates that a multitude of factors are required in the pursuit of elite athletic success. In particular, it is evident that various factors provide an important insight into the psychology of performance excellence. It should be noted that numerous scholars have highlighted that these key psychological factors develop in a complex fashion over an extended period of time (e.g., Durand-Bush & Samela, 2002; Gould et al., 2002; Jones et al., 2007). From an athlete Talent Development (TD) perspective, therefore, additional understanding of these factors has begun to emerge within the literature (e.g., Connaughton et al., 2008; MacNamara Button, & Collins, 2010a; 2010b). To this end, in recent years, sport psychology professionals (i.e., researchers and consultants) have been able to use this theoretical research to successfully develop education and performance-based programmes that support athletic excellence (e.g., Beauchamp et al., 2012; Gordin & Henschen, 2012; Gould & Eklund, 2007; Samulski & Lopes, 2008), as well as the development of future athletic talent (e.g., Gucciardi et al., 2009c; 2009d; Vaeyens et al., 2008). Therefore, although factors underpinning other elite sport performers are now emerging, it is necessary that further investigations adopt a similar “theory into practice” approach in an effort to develop effective psychological programmes (e.g., Martindale, Collins, & Abraham, 2007).

## **2.4 Elite Sport Officiating Research**

The increasingly competitive nature and win-at-all-cost environment in modern-day professional sports (Sheard, 2012), has led not only to greater inspection of elite athletic performance, but also other sporting domains as well. Specifically, research has begun to examine sporting personnel beyond elite professional athletes in an attempt to provide additional understanding of performance excellence (Nevill et al., 2008).

Examinations of such personnel include master athletes (e.g., Wilson, Sullivan, Myers, & Feltz, 2004), elite-level coaches (e.g., Olusoga et al., 2010), elite youth-level athletes (e.g., Mills, Butt, Maynard, & Harwood, 2012), Paralympic athletes (e.g., Dieffenbach & Statler, 2012), and extreme sport participants (e.g., Baker, Cote, & Deakin, 2005).

One sporting group to receive growing research attention are elite sport officials (MacMahon & Plessner, 2008). In part, this is due to elite officials being deemed to play an important role in sport, and they are now being recognised as performers in their own right (Philippe et al., 2009). Primarily, sport officials are accountable for evaluating athletic performance and for law/rule enforcement. However, given the diversity of professional sports, the duties placed on elite umpires, referees, match-officials, and judges are dependent on the specific competition. For example, MacMahon and Plessner (2008) identified three specific sport officiating categories: interactors, reactors, and monitors. These categories were established based on the amount of participants, relevant cues, and in conjunction with the amount of interaction officials have with performers during competition. Specifically, interactors were characterised as officials who ensure the safety of participants, the laws and spirit of the game, as well as having an impact on the flow of the competition. Examples include football referees, American football officials, and basketball officials. Sport officials who have little interaction with performers as well as being responsible for a particular set of cues are termed reactors. Reactors are subjected to high cognitive-perceptual demands during competition and could include assistant football referees, tennis line judges, and snooker referees. Finally, monitors are officials who watch and evaluate the technical components of performance in which a points system is usually implemented. Notable sports adopting such an approach include figure skating and gymnastics.

Research on sport officiating to date has primarily focused on psychological concepts such as passion (Philippe et al., 2009), personality (Balch & Scott, 2007), self-

efficacy (e.g., Guillen & Feltz, 2011), and stress (e.g., Voight, 2009) in amateur and sub-elite officials. Consequently, in a review by Mascarenhas, O'Hare, and Plessner (2006), only 22 studies were found to be associated directly with factors underpinning officiating excellence. This is surprising given that sport officials who operate at the elite-level devote an excessive amount of time to their profession (MacMahon, Helsen, Starkes, & Weston, 2007). To this end, the role of elite sport officiating provides the opportunity to examine sporting personnel beyond elite professional athletes to identify additional factors underpinning performance excellence.

## **2.5 Factors Underpinning Sport Officiating Excellence**

With sport psychology literature now acknowledging elite sport officials, research on “interactor” officials within team invasion sports is growing. In essence, team invasion sports require one team to invade another team's territory to score. Although this interaction varies significantly from sport-to-sport, elite officials operating in team invasion sports have many commonalities regarding their on-field duties. Specifically, knowledge and interpretation of the “Laws of the Game” and maintaining control of competition have been highlighted as two common duties (FIFA, 2012; International Basketball Federation; FIBA, 2010; IRB, 2011). Hence, based on these duties, emerging investigations have identified a range of factors contributing to officiating excellence within a variety of team invasion sports, such as, ice hockey (e.g., Dorsch & Lawrence, 2011; Dorsch, & Paskevich, 2007; Hancock & Ste-Marie, 2013), handball (e.g., Souchon et al., 2009; Tsorbatzoudis, Kaissidis-Rodafinos, Partemain, & Grouios, 2005), basketball (e.g., Schweizer et al., 2013), and Australian rules football (e.g., Larkin, Berry, Dawson, & Lay, 2011).

Supplementing this research, Mascarenhas et al. (2005a) revealed five factors when developing the “Cornerstones Model of Refereeing Performance” within English

Rugby Football Union (see Figure 2.3). Specifically, these scholars gathered a series of data material that was triangulated and content analysed using a grounded theory approach (Strauss & Corbin, 1998). Within this model, factors underpinning officiating excellence included personality and game management skills, contextual judgement, and psychological characteristics of excellence. This model was based on five key domains of officiating excellence and has since been used to assist the training, development, and selection of English Football Rugby Union referees. However, a limitation of this study was that the data collected was retrospective in nature and spanned 18 years from 1985 to 2003. In line with an athletic context (e.g., Jones et al., 2007), it is anticipated that prospective studies that gain the accounts of elite officials who currently operate within this modern-day professional climate would provide a greater understanding of officiating excellence.

Mellick, Fleming, Bull, and Laugharne (2005) reported that elite referees operating in rugby football union and football utilise a host of effective communication strategies during competition (e.g., verbal explanation, hand and arm signals). Echoing these findings, Mascarenhas et al. (2006) highlighted several factors associated with football officiating excellence, including judgement of fouls and misconduct, control of game procedures, and game management. Furthermore, extensive elite-level experience has also been acknowledged as a crucial factor underpinning officiating excellence within football (Catteeuw, Helsen, Gilis, & Wagemans, 2009). Indeed, years of experience has received widespread support from research into other elite officials operating in, for example, rugby football union (MacMahon & Ste-Marie, 2002), ice hockey (Pizzera & Raab, 2012), and handball (Pizzera & Raab, 2012). Collectively, these findings demonstrate some common technical and tactical factors that appear to underpin excellence in elite officials across a variety of team invasion sports.

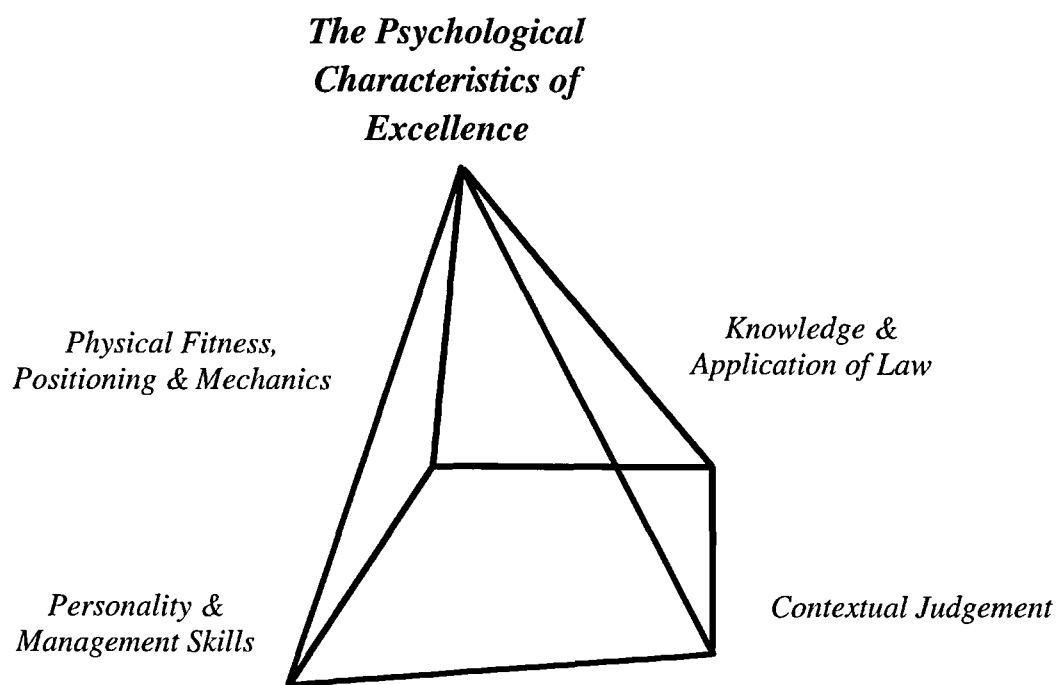


Figure 2.3 Cornerstones Model of Refereeing Performance (Mascarenhas et al., 2005a).

## 2.6 Factors Underpinning Football Officiating Excellence

Despite some commonality between factors being reported (e.g., game management, contextual judgement, communication skills, years of experience), it has also been suggested that factors associated with officiating excellence are sport-specific in nature (e.g., Brand et al., 2006; Mascarenhas et al., 2005b). This notion is nowhere more apparent than within elite football (Dickson, 2002). It is clear that whilst the on-field pressures on professional football players continue to grow rapidly (Gamble, Hill, & Parker, 2013; Gilbourne & Richardson, 2006; Thelwell et al., 2005), so do the performance demands faced by football officials (Wolfson & Neave, 2007). In particular, unlike other similar team invasion sports (e.g., American football, ice hockey, basketball, rugby football union) that refer to technology-assisted feedback during competition; feedback includes the use of slow motion recall from differing viewpoints, or the use of computer systems to visually track the flight and positioning of the ball to support the adjudicating process. FIFA have traditionally taken a conservative standpoint on the use of referee-assisted technology in football competition (FIFA, 2012). Thus, elite football officials are currently solely left to make instantaneous decisions in a range of highly contentious circumstances (e.g., appeals for a penalty kick).

Another recurring demand faced by elite football officials is the criticism from key stakeholders within the sport. Recently, for example, a high-profile manager at the time publically attacked a referee during a post-match interview (The Guardian, 2009):

He [elite football referee] was not fit enough for a game of that standard...The pace of the game demanded a referee who was fit. It is an indictment of our game. You see referees abroad who are as fit as butcher's dogs. He was taking 30 seconds to book a player. It was ridiculous.

Such demands have led to several high-profile football referees taking early retirement from international and domestic competition (Campbell, 2005). In line with this,

Glasgow Celtic's assistant manager, Johan Mjallby, has called on Scottish Premier League (SPL) referees to toughen up under the criticism (Murray, 2011).

It's a hard job and I understand that, but at the same time, if you want to be a referee you need to be mentally tough... We know they are going to make mistakes. It's going to happen in the future, we don't have a perfect world. I think most of them are competent enough, but maybe they should be mentally tougher.

As such, sport psychology research has examined the psychological demands (e.g., Helsen & Bultynck, 2004), physical match workload (e.g., Krusturp et al., 2009), and performance-related difficulties of elite football officiating. Specific areas of research targeting performance demands have focused on home advantage (e.g., Anderson et al., 2012), crowd size/noise (e.g., Boyko, Boyko, & Boyko, 2007; Johnson, 2008; Nevill, Balmer, Williams, 2002), team's reputation (Jones, Paull, & Erskine, 2002), moment-to-moment game encounters (e.g., Unkelbach & Memmert, 2008), physical attributes of players (e.g., Van Quaquebeke & Giessner, 2010), player discipline (Reilly & Witt, 2013), and errors in offside decision-making (e.g., Catteeuw, Gilis, Garcia-Aranda, et al., 2010; Catteeuw, Gilis, Wagemans, et al., 2010).

Perhaps not surprisingly, therefore, high-level decision-making has been highlighted as an important factor associated with football refereeing at the elite-level (e.g., Catteeuw, Helsen, Gilis, Van Roie et al., 2009; Gilis et al., 2006; MacMahon et al., 2007). Within this line of inquiry, Catteeuw, Helsen, Gilis, & Wagemans (2009) reported that decision-making ability is also referee role-specific. For example, a referee primarily makes foul-play decisions and is supported by two assistant referees who predominately make offside decisions. Using a video-based activity, assessing foul-play and offside decisions, Catteeuw, Helsen, Gilis, and Wagemans (2009) found that referees demonstrated better judgment of foul-play incidents, whereas assistant referees displayed more accurate offside judgment. Taken together, findings acknowledge that

high-level decision-making is not only specific to the sport, but also role-specific to referees and assistant referees.

In addition to high-level decision-making, key coping strategies deployed by football referees are also deemed to be a sport-specific factor underpinning officiating excellence. Accordingly, research has outlined various effective strategies in the face of numerous stressful situations specific to English football officiating. Most notably, Lane et al. (2006) examined various factors that might influence decisions (e.g., crowd noise, home advantage, self-doubt) when interviewing five experienced English football referees. Findings revealed the use of numerous coping strategies (e.g., using common sense, professional mind-set, crowd interaction), in particular, one referee discussed maintaining self-composure during competition as a way of maintaining an optimal level of decision-making (Lane et al., 2006, pg. 249):

Just stayed calm... When everybody else is losing their head just make sure you don't lose yours. And you can't afford to be seen to be ruffled or showing signs of weakness. You can't allow yourself to give out that image that this guy isn't in full control. If the referee isn't in full control, what chance has anybody got?

Supplementing this line of research, Wolfson and Neave (2007) explored the cognitive approaches of English football referees when performing under pressure (e.g., hostile crowds, lack of recognition, de-selection). In particular, in response to verbal and physical abuse, notable strategies included people not understanding the laws of football, people's bias towards their team, and people reacting to the heat of the moment. Referees also outlined a multitude of effective cognitive strategies in response to refereeing errors during competition, for example, trying to learn something from it, analysing what happened to understand it better, and replaying the situation back in their mind and imagining what they should have done. Wolfson and Neave (2007) concluded that English football referees were confident and resilient performers under such pressures,



and who rated themselves higher on various refereeing competencies than their fellow peers (e.g., visual perception, willingness to accept a mistake, ability to read the game).

Taking these two studies together, findings echo previous coping literature in an athletic context (e.g., Weston, Thelwell, Bond, & Hutchings, 2009), and suggest that football referees adopt a range of coping strategies (e.g., approach, emotion, problem-based) in the face of organisational, performance, and personal-related pressures. It is important to note, with cultural differences prevalent in players throughout world football (Nesti, 2012), there are likely to be similar differences in officials. As a result, these effective strategies offer a unique insight into English football officiating. While the officials in both studies could well be considered elite, the pressures faced by referees operating in English football's top-tier (i.e., EPL) are likely to be considerably different (Catteeuw, Gilis, Wagemans, et al., 2010; Winter, 2012). Therefore, a limitation of the findings is the generalisability to officials who operate within modern-day, EPL football. To this end, investigating a sample of elite English officials who referee at the highest domestic level would further enhance the understanding of football officiating excellence.

In summary, although this literature has recognised specific factors underpinning football officiating excellence (e.g., high-level decision-making, role-specificity, effective coping strategies), it is still very much aligned with objective, laboratory-based investigations (e.g., Gilis et al., 2006). Comparatively, little research has employed qualitative lines of enquiry when exploring potential new factors associated with officiating excellence. To this end, Mascarenhas et al. (2006) called for research with a greater focus on the on-field performance of elite-level football officials to identify the additional factors characterising excellence in this area.

As previously discussed, the EPL provides a suitable context in which to explore officiating excellence given the high level of athletic ability of the players coupled with the magnitude of the sporting arena. The EPL is regarded as one of the most successful

sports leagues in the world (Noll, 2002). Indeed, EPL matches are now broadcast to 643 million homes in over 200 countries, with an audience of an estimated 4.7 billion viewers (English Premier League, 2011). As a result, seven EPL clubs currently rank amongst the top 20 of the most profitable in world football (Battle et al., 2011). It is evident that this competition is considered one of the major domestic club competitions in football, in terms of media exposure, global public interest, and economic power (Catteeuw, Gilis, Wagemans, et al., 2010). Within this league, promotion to the top tier, relegation, and qualification to various European club tournaments (e.g., Union of European Football Associations [UEFA] Champions League) now have considerable ramifications both on and off-the-field (e.g., academy development). Subsequently, given the importance of each fixture, which officials' actions directly impact upon, it is evident the performance-level of EPL referees must now be of a high quality.

It is expected that investigating the perceptions of referees of this ability level can reveal unique factors underpinning football officiating excellence. Indeed, outside the physiological components (e.g., Weston, Bird, Helsen, Nevill, & Castagna, 2006), factors characterising EPL refereeing excellence is still in its infancy. From an applied perspective, the pressure on football's NGBs to produce top-level officials has never been greater (Sinnott, 2011). This has been marked by increased investment by NGBs in tackling this area (The FA, 2012; UEFA, 2012). In line with this, recent literature has emphasised the need to integrate innovative training procedures in an effort to improve refereeing performance (e.g., Gilis, Helsen, Catteeuw, Van Roie, & Wagemans, 2009; Nevill, Webb, & Watts, 2013; Put, Wagemans, Jaspers, & Helsen, 2013; Schweizer, Plessner, Kahlert, & Brand, 2011). Thus, it is in the interest of sport psychology professionals (i.e., researchers and consultants) to acquire a comprehensive understanding of football officiating excellence in order to design and implement the necessary programmes to facilitate performance, and also enhance effective referee development.

## 2.7 Summary and Aims of the Thesis

Over the years, the concept of performance excellence has received widespread interest from sport psychology researchers. With elite athletes being the central focus, a comprehensive understanding of factors pertinent to elite athletic performance is now evident (e.g., Durand-Bush & Salmela, 2002). Consequently, this theoretical research has been used to successfully develop programmes that support athletic excellence and the development of future talent (e.g., Beauchamp et al., 2012; Gordin & Henschen, 2012). In moving this literature forward, investigations have begun to examine other sporting personnel beyond elite professional athletes in an attempt to provide additional insight into performance excellence (e.g., Carter & Bloom, 2009; Martin, 2012). In particular, sporting personnel receiving growing research attention are elite sport officials (MacMahon & Plessner, 2008). In part, this is due to elite officials being deemed to play a vital role in sport, and being recognised as performers in their own right (Philippe et al., 2009). Given the demands associated with modern-day competition previously discussed, a particular focus has been placed on understanding football officiating excellence (e.g., Mascarenhas et al., 2006). Although this literature has provided a starting point in identifying specific factors underpinning elite officiating, limitations include participants not truly officiating in modern-day, elite-level football competition (e.g., Lane et al., 2006), and research designs being prominently experimental and laboratory-based (e.g., Gilis et al., 2006). As a result, scant research has employed qualitative lines of enquiry when exploring potential new factors associated with elite professional football officials. To this end, the central purpose of this thesis was to identify factors underpinning football officiating excellence in the context of EPL refereeing. In line with an athletic context (e.g., Gould et al., 2002), it is anticipated that, based on the perceptions of EPL referees, the findings might inform the development of an effective programme to help in the support of officiating excellence as well as the development of future talent in English football refereeing.

## CHAPTER III

### Study One

#### *Factors Underpinning Football Officiating Excellence:*

#### *Perceptions of English Premier League Referees<sup>1</sup>*

### 3.1 Introduction

In an attempt to provide additional insight into performance excellence, sport psychology research has begun to examine performers beyond athletes such as sport coaches (e.g., Olusoga et al., 2010). One particular area of research receiving attention is elite sport officiating (MacMahon & Plessner, 2008). Accordingly, emerging research has identified a range of factors contributing to officiating excellence within a variety of team invasion sports (e.g., Catteeuw, Helsen, Gilis, & Wagemans, 2009; Dorsch & Paskevich, 2007; Mascarenhas et al., 2005a; Mascarenhas et al., 2006; Pizzera & Raab, 2012; Souchon et al., 2009). Taken together, findings acknowledge that these factors are not only specific to the sport, but also role-specific to referees.

In a football context, it is important to note that although this literature has recognised specific factors underpinning officiating excellence, it is still very much aligned with objective, laboratory-based investigations. Comparatively, little research has employed qualitative lines of enquiry when exploring potential new factors associated with officiating excellence. To this end, Mascarenhas et al. (2006) called for research with a greater focus on the on-field performance of elite football officials to identify the additional factors characterising excellence in this area.

---

<sup>1</sup> The study reported in this chapter has been accepted for publication: Slack, L. A., Maynard, I. W., Butt, J., & Olusoga, P. (2013). Factors underpinning football officiating excellence: Perceptions of English Premier League referees. *Journal of Applied Sport Psychology*, 25, 298-315.

## 3.2 Study Purpose

It is expected that investigating the perceptions of EPL referees can reveal unique factors underpinning football officiating excellence. Indeed, outside the physiological components (e.g., Weston et al., 2006), factors characterising EPL refereeing excellence is still in its infancy. From an applied perspective, the pressure on football's NGBs to produce top-level officials has never been greater (Sinnott, 2011). In line with this, recent literature has emphasised the need to integrate innovative training procedures in an effort to improve refereeing performance (e.g., Gilis et al., 2009). Thus, it is in the interest of sport psychology professionals (i.e., researchers and consultants) to acquire a comprehensive understanding of football officiating excellence in order to design and implement the necessary programmes to facilitate performance, and also enhance effective referee development. The purpose of this study was to identify the factors underpinning officiating excellence as perceived by Select Group referees, a full-time, professional panel appointed by Professional Game Match Officials Limited (PGMOL) to referee football matches in the EPL.

## 3.3 Method

### 3.3.1 Participants

Following completion of institutional ethics procedures, 15 EPL football referees ( $M_{\text{age}} = 41.33$  years;  $SD = 7.93$ ) agreed to participate in the study. In accordance with the purposive sampling procedure employed in this study, all participants were currently active ( $N=12$ ) or recently retired Select Group referees ( $N=3$ ; retired in the last 18 months of interviewing). At the time of interviewing, referees reported an average of 6.07 years ( $SD = 3.92$ ) of EPL football experience, and had refereed 1586 ( $M_{\text{matches}} = 105.73$ ) football matches collectively at this level. The first author who had experience in qualitative research procedures conducted all interviews.

### **3.3.2 Procedure**

Permission to collect data and logistical assistance gained for participant recruitment was provided by PGMOL. Referees were initially contacted via email, phone, or in-person, and invited to participate in the study. Each referee was given a document outlining the purpose of the study and a detailed account of participant requirements (see Appendix A). Given the exploratory nature of this study, in-depth one-to-one interviews were considered an appropriate method for data collection (Patton, 2002). Interviews were conducted at either Select Group training camps or at a time and location most convenient for each referee. Pilot interviews were conducted with two EFL officials. This enabled the first author to review the audio recordings to ensure the clarity of the interview structure and questions asked. The pilot interview transcripts were also critiqued by an experienced team of three researchers. As a result of this feedback, several alterations were made to the interview guide when addressing its suitability and appropriateness.

### **3.3.3 Interview guide**

A semi-structured interview guide was developed similar to that employed in previous performance excellence literature (e.g., Greenleaf et al., 2001) and through discussions with the research team. The interview guide consisted of a series of open-ended, non-leading questions (Patton, 2002), and was designed in a way that explored factors perceived by EPL referees to underpin football officiating excellence. Prior to the main body of questions, "ice-breaker" questions (Rubin & Rubin, 2005) were employed to build rapport with each participant. This comprised of general questions about the referees' previous involvement in English football refereeing. The main body of the interview guide included questions about referees' experiences of EPL refereeing (e.g., "talk about your time as a Select Group referee") and factors underpinning elite football officiating (e.g., "explain factors that are important to you when performing your role successfully"). In addition, several probes (e.g., detailed probe: "specifically, you've highlighted [factor], can

you tell me why that is important?"; elaboration probe: "can you tell me more about that [experience] and give me an example?"; clarification probe: "I'm not sure I understood what you mean by that [factor]]? can you expand on that a little further?") were implemented throughout the interviews (Patton, 2002). Finally, at the end of each interview all participants were asked a general question (e.g., "are there any other factors that enable you to perform your role successfully?") to consider salient factors previously unexplored (see Appendix B).

### **3.3.4 Data analysis**

All interviews were digitally audio recorded and transcribed verbatim by the first author (see Appendix C), resulting in 152 single-spaced pages (pseudonyms were applied to anonymise all personal identifying information). Interviews lasted on average 49.40 minutes ( $SD = 16.25$ ). Following data collection the team of researchers read the interview transcripts numerous times to enhance familiarity. Independently, three members of the research team then inductively content analysed the data following recommendations by Miles and Huberman (1994) and employed widely within current applied sport psychology research (e.g., Jones & Harwood, 2008). Inductive content analysis followed a three-step procedure in this investigation allowing themes to emerge from the data. Step one: raw-data themes representing factors underpinning football officiating excellence were coded individually as quotes or paraphrased quotes (Maykut & Morehouse, 1994). Step two: similar raw-data themes (e.g., support from peers, parental support, support from a close colleague) were grouped together to form lower-order themes (e.g., social support). Step three: once lower-order themes were compiled, an inductive analysis of the data then coalesced similar lower-order themes (e.g., social support, PGMOL support) into higher-order themes. Each higher-order theme was then assigned a descriptive name that conveyed the general essence and meaning of that theme (e.g., support networks and services).

### **3.3.5 Trustworthiness criteria**

Trustworthiness was achieved through a number of key procedures as outlined by Lincoln and Guba (1985). First, member-checking was carried out to ensure accuracy of the contents of the transcript. Each participant received an electronic transcribed copy of their interview and was asked to confirm that the information contained was precise in content and meaning. As part of this process, participants were asked to insert, remove, or amend any information deemed necessary. Three participants reported additional information. Second, researcher triangulation (Patton, 2002) involved a series of team meetings in which discussions were held until the three researchers reached consensus on all raw-data, lower- and higher-order themes. Third, an independent researcher carried out an external audit and provided inter-rater reliability confirmation (Creswell, 1998). Specifically, this researcher categorised a random collection of 30 (27%) raw-data themes and successfully coded 27 (90%) into their appropriate lower-order themes and 28 (93.3%) into their appropriate higher-order themes. Finally, a fourth member of the research team (i.e., peer-reviewer) critically probed for explanations of certain decisions made on specific themes.

### **3.4 Results**

From the data analysis procedures, 111 raw-data themes emerged. These themes were organised into 24 lower-order themes and eight higher-order themes representing factors perceived to underpin football officiating excellence (see Figure 3.1). The higher-order themes included: (a) MT attributes, (b) support networks and services, (c) effective game management qualities, (d) multifaceted pre-match preparation, (e) performance-level enhancement, (f) opportunities to thrive, (g) personal characteristics, and, (h) superior physical components. In accordance with existing research (MacNamara et al., 2010a), the percentage of each raw-data, lower-order, and higher-order theme cited by referees were shown in parentheses. Findings were illustrated using thick descriptive



quotes. Denzin (2009, pg. 97) purports that "a thick description... Gives the context of an experience, states the intentions and meanings that organised the experience, and reveals the experience as a process." As a result, readers are able to generate their own interpretations and conclusions. In addition, excerpts pertaining to each higher-order theme were labelled with a referee identification number (e.g., Referee 6 = R6, etc.).

### **3.4.1 Mental Toughness attributes**

All 15 referees identified factors that coalesced into MT attributes. Within this higher-order theme seven psychological components captured MT attributes at the elite-level and included: (a) coping with pressure, (b) resilience, (c) robust self-belief, (d) tough attitude, (e) achievement striving, (f) high work-ethic, and, (g) sport intelligence.

#### **3.4.1.1 Coping with pressure**

The lower-order theme of coping with pressure was highlighted when officiating in the EPL, in which referees discussed "coping with match-day pressures," "handling the global exposure of the [English] Premier League," as well as "dealing with media scrutiny," for example:

You need to be mentally tough because the criticism you get from the media is not always positive. No one likes to hear or read negative comments about themselves. There's nothing worse than reading headlines saying "you should've done this, you should've done that"... Because it's not just the one man and his dog that reads the newspapers, it's everybody in the British Isles and sometimes the world. So there's a big pressure and a big demand from the media side of things. (R8)

#### **3.4.1.2 Resilience**

Fourteen referees mentioned resilience as an important factor when refereeing at the elite-level. In particular, referees talked about "not dwelling on decisions" during a game, "overcoming performance setbacks," and "bouncing-back from a poor performance." As noted by one Select Group referee:

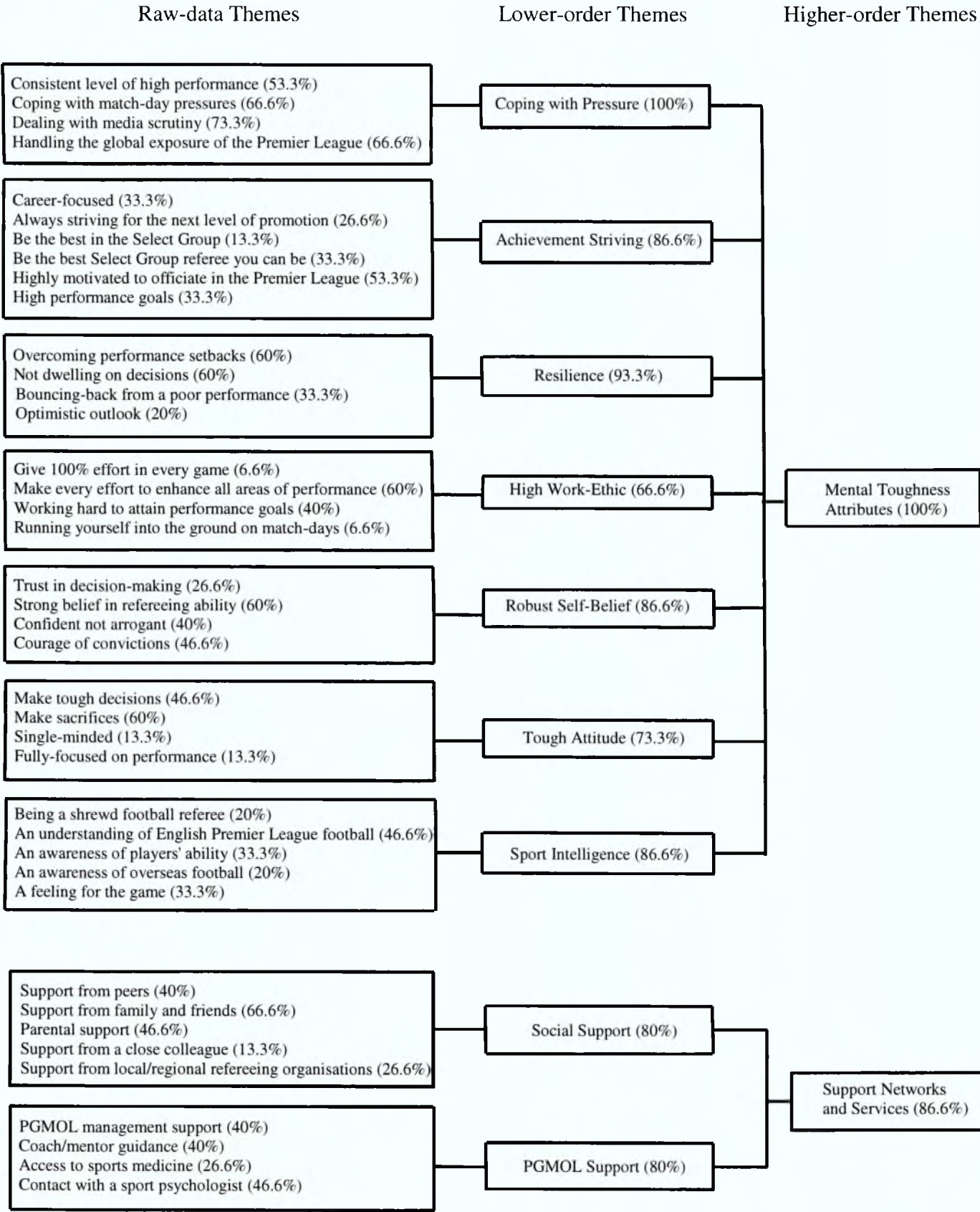


Figure 3.1 Factors perceived to underpin football officiating excellence.

Yes, you've made a mistake but then you have to be able to bounce-back from that [performance] and put it to one side. So it's about having that resolve... It's having a positive frame of mind and maintaining a positive frame of mind for your next game... That has got to be one of the most important things certainly within a high-profile environment that we're in; refereeing in the [English] Premier League. (R10)

### **3.4.1.3 Robust self-belief**

Referees were also characterised as possessing robust self-belief. Encapsulating this lower-order theme, officials discussed being "confident not arrogant" and having a "strong belief in refereeing ability." The following quote provides further indication that robust self-belief was a key mental toughness attribute underpinning refereeing excellence:

It's the belief in your own ability to deal with particular situations when refereeing... It's not a case of going all scatty [absent-minded] about things and thinking I'm not sure about this, I'm not sure about that, it's actually thinking I know what I'm doing here... You have to go 100% with your convictions, then that's trust in yourself. It's just the belief that you can do the job [EPL refereeing]. (R10)

### **3.4.1.4 Tough attitude**

Eleven out of the 15 referees acknowledged that having a tough attitude portrayed MT attributes at the elite-level. In particular, the ability to "make tough decisions," staying "fully-focused on performance," and having to "make sacrifices" were all captured. This was fully depicted by passages such as, "your life is primarily devoted to [EPL] refereeing, which means all your other considerations become secondary. Everything is focused on refereeing." (R14)

### **3.4.1.5 Achievement striving**

Several referees highlighted achievement striving as a key element when performing at the EPL level. Specifically, officials described the importance of being "highly motivated to officiate in the [English] Premier League" and aspiring to "be the

best Select Group referee you can be." One referee fully illustrated this in the following quote:

I won't referee a [FIFA] World Cup Final, but there's no reason why I can't push for the next best thing which would be the UEFA [Champions League] Cup Final. So just being realistic to know that you've got those targets and it's important to know that. I think that's vital having those short, medium, and long-term goals. (R2)

#### **3.4.1.6 High work-ethic**

Select Group members emphasised a high work-ethic when officiating at the elite-level. Capturing this lower-order theme, referees highlighted "make every effort to enhance all areas of performance," "running yourself into the ground on match-days," as well as "working hard to attain performance goals." For example, one referee explained:

I want to referee The FA Cup Final like everybody else in the [Select] group. That's what drives me on and that's what has to drive you on... You've got to be absolutely giving it 100%. So we have to continually look to improve... Do that little bit more and do that extra 1% all the time... That's what separates [Select Group] us from the rest. (R3)

#### **3.4.1.7 Sport intelligence**

Finally, 13 referees described how sport intelligence was a crucial factor underpinning football officiating excellence. In particular, officials mentioned having "an awareness of overseas football," "an awareness of players' ability," and "an understanding of English Premier League football." The following quote fully typifies this:

In the [English] Premier League in terms of football it's faster, the pace is quicker and the movement of the ball is quicker, not necessarily from end to end but across the field of play as well... It's more tactical awareness because there's more physical challenges, there's a greater skill level [at the EPL level]. Funnily enough there's less free-kicks, less confrontation because the players are more disciplined. But that's over-simplifying it because if you take every one of the 20 teams in the Premier League, they've all got different characteristics... That knowledge is what differentiates referees in the Select Group. (R14)

In addition, five elite referees discussed having "a feeling for the game" which provided further evidence that sport intelligence was a crucial element characterising MT

attributes. In particular, one individual discussed their understanding of their role during elite-level competition:

As events go during a [EPL] game, things are very fluid, so you have to think on your feet all the time. You do need a feeling for the game, you really do. You think, am I in the right place? What could happen here? Maybe I could move there a little bit? So it's not just being self-aware of your performance after the game, it's also being self-aware during the game to try and get every decision right. (R10)

### **3.4.2 Support networks and services**

Thirteen out of the 15 Select Group referees attested to having access to a host of support providers. This theme comprised of two lower-order themes: (a) social support, and, (b) PGMOL support.

#### **3.4.2.1 Social support**

Social support outlets comprised various generic groups including local and regional refereeing organisations to specific individuals. For example, parents, a close colleague, as well as family (e.g., spouse), and friends were all cited. As one elite referee conveyed:

At the end of the day, you have your family support behind you... I mean she's [spouse] behind me every step of the way, she's like a rock for me believe it or not, she's great. When I was going through a bad time three years ago because I wasn't getting the [EPL] games, she would just talk to me and say "look, what you've got to do is just go out and referee." So I did. (R6)

Similarly, one particular referee recalled how receiving support from peers was also invaluable when refereeing at the EPL level:

I can certainly trust two or three in the [Select] group with everything and I can talk to them about anything. I think that's a big thing having that support and they also know what you're thinking, they know what your thoughts are, and what you're going through... It makes a massive difference when things aren't particularly going so well with [EPL] refereeing. (R2)

#### **3.4.2.2 PGMOL support**

PGMOL support was also considered a crucial element when officiating in the EPL. Salient raw-data themes highlighted by 12 referees included having "access to

sports medicine," "contact with a sport psychologist," and "PGMOL management support." One Select Group referee provided a detailed testimony to how "coach/mentor guidance" was invaluable at the elite-level:

We can have a good old chin-wag [discussion] about anything at any time of the day. I can ring him up [coach], he can ring me and we'd have a good old chat and you can get it off your chest... For example: training, life, appointments, people, can be anything. You tend to get that trust between each other where what you say just stays between the two of you. (R8)

### **3.4.3 Effective game management qualities**

Five lower-order themes emerged from the interviews, that referees felt were important in achieving effective game management and comprised: (a) establishing player and manager respect, (b) effective communication skills, (c) credible on-field positioning, (d) decisive decision-making, and, (e) match-day officials' team cohesion.

#### **3.4.3.1 Establishing player and manager respect**

Establishing player and manager respect represented a factor underpinning excellence, in which numerous referees mentioned having "empathy for players" and "building player-trust" were paramount. This was fully portrayed by phrases such as:

Players need to trust you and you've got to realise that they aren't just going to trust you straight away... You've got to earn that trust over a number of years. When you do, players will then trust that you will get 99.9% of the decisions right. (R1)

#### **3.4.3.2 Effective communication skills**

Thirteen referees highlighted a range of effective communication skills contributing to successful game management at the elite-level. In particular, the "ability to read players' body language," "conveying positive body language," and the capacity to "actively listen to players" while on the field of play were all deemed vital non-verbal attributes. In addition, verbal communication included the "use of players and managers' language" and a readiness to "talk to players and managers." As one Select Group referee noted:

There's a greater willingness at the top-level to actually engage and communicate with players. Particularly at this level of football [EPL] you cannot refuse to talk to players, which in my own experiences is completely counter-productive. We're out there and working together and the players have their objectives for the game and we have our objectives for the game. We need to be able to co-operate and work together, to do that we need to communicate effectively. (R7)

### **3.4.3.3 Credible on-field positioning**

An additional game management quality to surface was the importance of credible on-field positioning. Referees suggested that being in "close proximity to incidents," the "anticipation of future events," and gaining the "optimal viewing angle" were all key components when performing at their best:

It's about giving a decision from the best possible angle you can be in and from the best possible view. If you've got the best possible view of an incident, you're in the perfect position; you give what you see... You've given it to the best of your ability from the angle that you're at. (R12)

### **3.4.3.4 Decisive decision-making**

Within the lower-order theme of decisive decision-making, Select Group referees felt that performance excellence was characterised as the "accuracy of big decisions" during competition. Furthermore, several officials discussed being in "close proximity when delivering [yellow, red] cards to players" and "consistency of decisions during a game."

### **3.4.3.5 Match-day officials' team cohesion**

Finally, match-day officials' team cohesion was acknowledged as a factor contributing to EPL refereeing excellence. Specifically, taking "control of match-day officials," establishing "team-unity," and "team-understanding" were all deemed invaluable assets when performing successfully on match-days:

It's trying to encourage and develop a sense of team, so that you bring the game to a safe conclusion without any major incidents judged incorrectly, The only way you're going to do that is the four [referee, assistant referees, and fourth-official] of you working together, not just the referee working on his own. (R10)



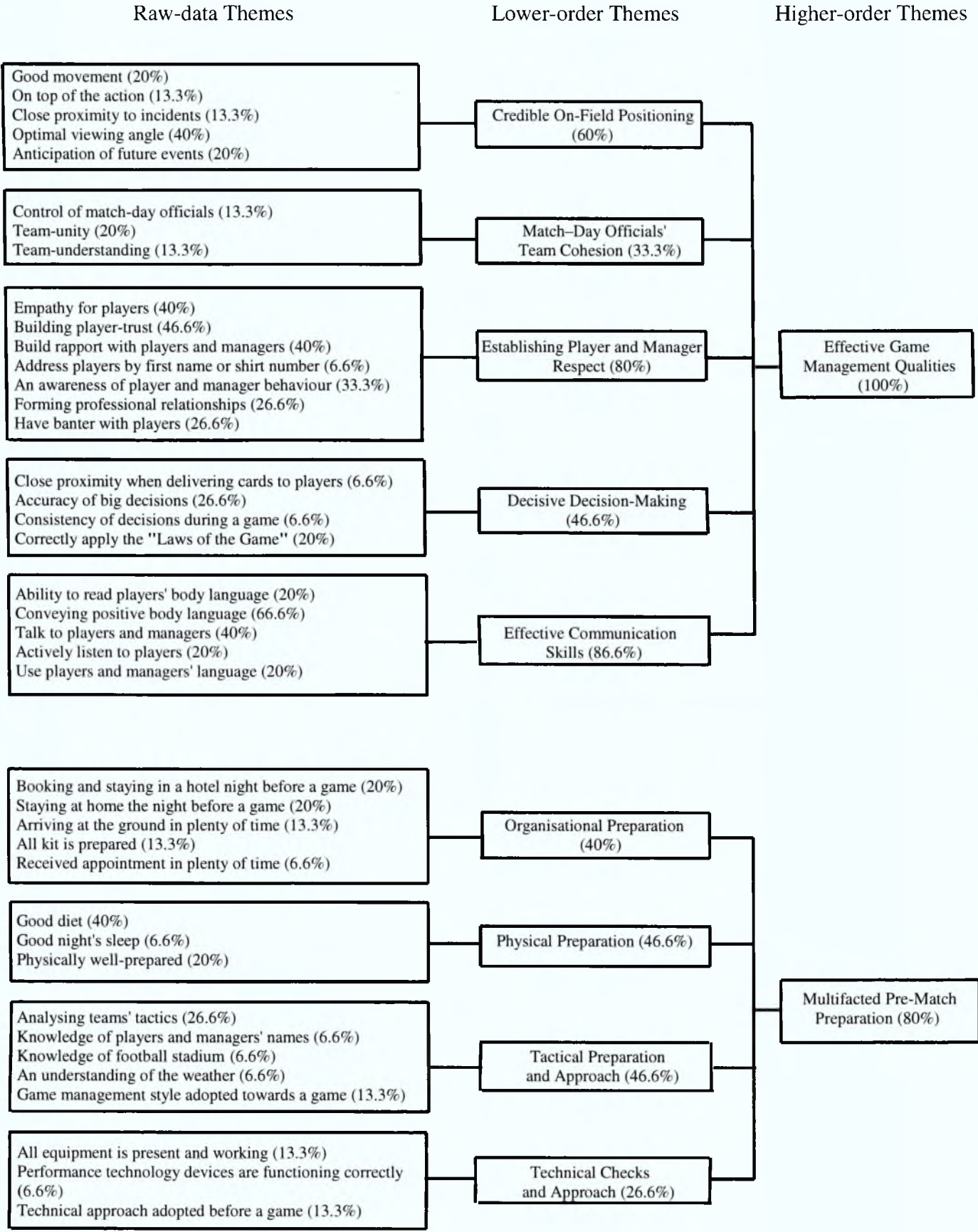


Figure 3.1 Factors perceived to underpin football officiating excellence (continued).



### **3.4.4 Multifaceted pre-match preparation**

Select Group referees described how extensive preparation was a salient factor contributing to elite-level officiating. In total, 16 raw-data themes were grouped and collapsed into four lower-order themes: (a) organisational preparation, (b) physical preparation, (c) tactical preparation and approach, and, (d) technical checks and approach.

#### **3.4.4.1 Organisational preparation**

Specifically, referees mentioned, "arriving at the [football] ground in plenty of time," "staying at home the night before a game," and "all kit is prepared" within the lower-order themes of organisational preparation. One official suggested:

It starts from when you know your appointment on Monday at three o'clock... So now you're thinking about the weekend and it's an early kick-off. So I've got to travel overnight and stay overnight in a hotel. So it's arranging the hotel and booking that. (R9)

#### **3.4.4.2 Physical preparation**

Leading up to match-days, officials cited the importance of physical preparation for achieving optimal performance levels. Referees revealed that a "good diet," being "physically well-prepared," and a "good night's sleep" were key factors in preparing for EPL fixtures.

#### **3.4.4.3 Tactical preparation and approach**

Furthermore, it was evident that elite football referees were meticulous in tactical preparation and approach from the onset of being assigned each match-day appointment up until the start of competition. When planning for forthcoming matches, referees talked in detail about their own personal routines, which included "knowledge of players and managers' names," having "an understanding of the weather," and "analysing teams' tactics." As one Select Group official stated:

You'll think about the characteristics of those two teams, all the technical aspects of refereeing, what it means for your man-management, your knowledge of the players, your knowledge of the stadium, and, the

knowledge of the weather and how that will affect the match. So you factor all those into your preparation. (R14)

#### **3.4.4.4 Technical checks and approach**

Finally, the lower-order theme of technical checks and approach highlighted the need for referees to address certain practicalities when preparing for games. Specifically, officials discussed various issues encompassing "all equipment is present and working," "performance technology devices are functioning correctly," and "technical approach adopted before a game." This was characterised at length by one particular individual:

Before a game, you'll look at all the attacking free-kicks that the teams are doing. Where's the ball being delivered? Is it being delivered to a particular zone? Is the ball being delivered to a particular player? If it is... Who marks that particular player? That then affects your positioning and what to look for in that situation? (R14)

#### **3.4.5 Performance-level enhancement**

Referees taking part in this study mentioned how continually enhancing performance was a key feature contributing to refereeing excellence at this level. Three lower-order themes encapsulated this higher-order theme: (a) Select Group development, (b) self-analysis of refereeing performance, and, (c) application of performance-aided technology equipment.

##### **3.4.5.1 Select Group development**

In particular, eight referees revealed "performance scrutiny of PGMOL management", while five referees acknowledged receiving "constructive criticism from peers" as important factors underscoring Select Group development. Referees also talked about high Select Group cohesion and how they discuss their on-field involvements:

We have a good balance of different experience levels and different age levels... Because of that we are able to work together and share experiences and thoughts. So to help us become the best we can and gain the best possible solution... If there's any particular sort of problem that arises from one specific match, the nature of the group is very forward-thinking. We are

able to challenge each other to come up with positive solutions to what might be quite difficult issues. (R7)

### **3.4.5.2 Self-analysis of refereeing performance**

Moreover, self-analysis of refereeing performance was highlighted as a factor when achieving optimal standards of refereeing excellence. Findings contained three raw-data themes and among those discussed were the ability to "self-reflect on refereeing performance," as well as being "self-critical of decisions made," as one referee illustrated:

You'll look at a perceived mistake over the weekend or a decision whereby it hasn't had the general backing of the football authorities or public. So at which point you analyse the reasons why... Was it due to bad positioning? Was it due to bad preparation? (R3)

### **3.4.5.3 Application of performance-aided technology equipment**

Finally, emerging from the interviews it was evident that the application of performance-aided technology equipment represented a factor underpinning performance excellence. One Select Group referee identified that "mastering the use of third-party communication headsets," as well as four referees advocating the "use of Prozone" (i.e., an objective sports performance analysis tool) facilitated EPL refereeing excellence:

It's about using Prozone and whilst we've always used heart-rate monitors, it's actually using these two tools that have been toys as opposed to tools previously. It's getting the best out of these two tools to analyse your performance... Using them to make sure that on the field of play you're actually using research. (R5)

### **3.4.6 Opportunities to thrive**

Fourteen of the 15 Select Group referees highlighted the importance of being given opportunities to thrive as a crucial factor supporting EPL officiating. Accordingly, 12 raw-data themes encompassed three lower-order themes: (a) personal domestic honours, (b) International experience, and, (c) extensive referee grounding.

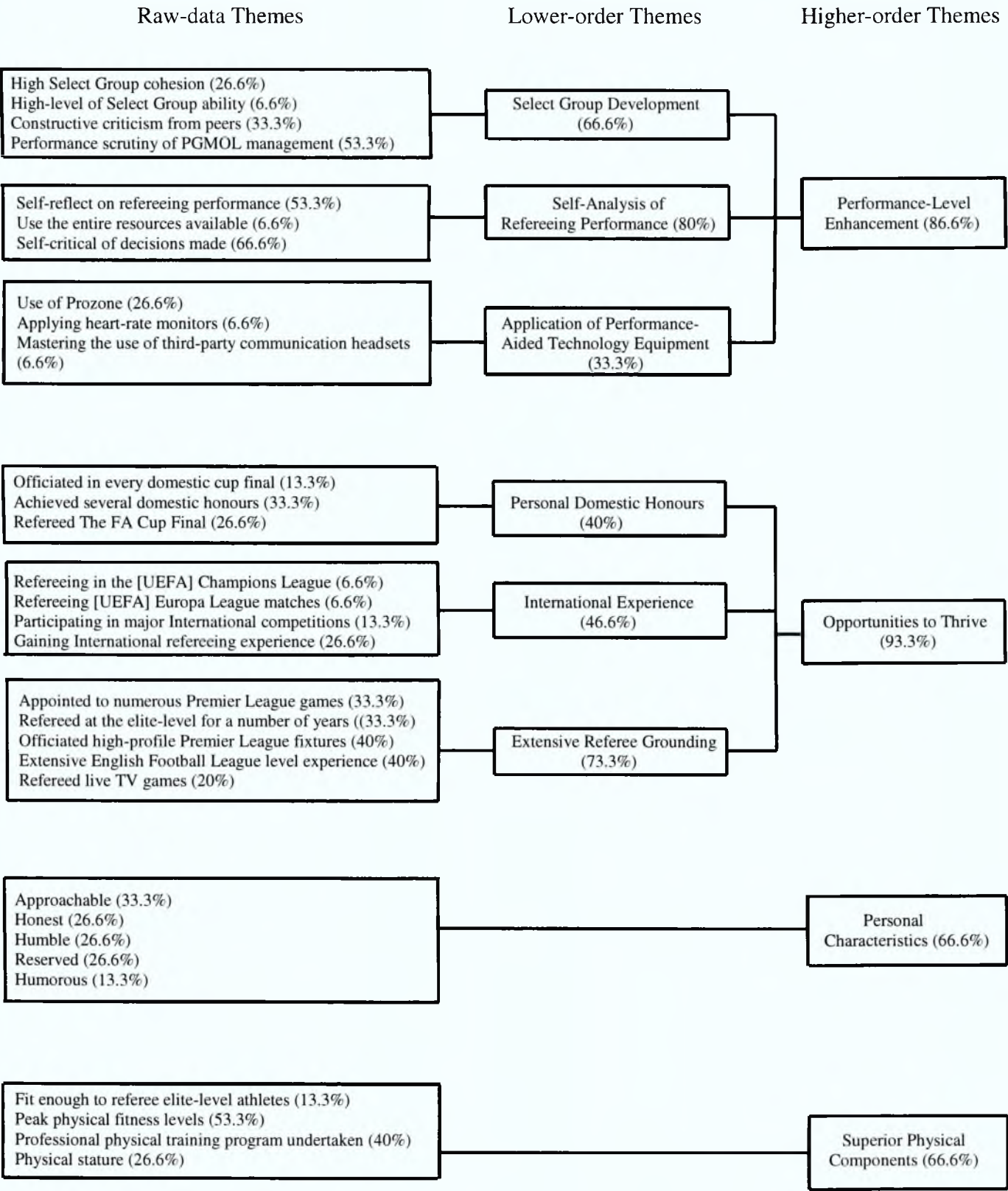


Figure 3.1 Factors perceived to underpin football officiating excellence (continued).

Note: Percentage (%) represents the fraction of participants from within the sample that cited a particular raw-data, lower-order, and higher-order theme.

### **3.4.6.1 Personal domestic honours**

Six referees revealed that the attainment of personal domestic honours were a factor contributing to football officiating excellence. Specifically, two Select Group referees mentioned they had "officiated in every domestic cup final," as well as four having "refereed The FA Cup Final." In particular, one referee discussed his experience when reaching the pinnacle of his refereeing career:

My most favourable experience would have to be refereeing The FA Cup Final in 200<sup>X</sup>... A fantastic game and I think for every footballer they dream of playing in The FA Cup Final and it's the same for referees as well. (R12)

### **3.4.6.2 International experience**

Of additional interest, seven officials discussed how international experience had facilitated optimal levels of refereeing performance in the EPL. Referees mentioned "refereeing in the [UEFA] Champions League," "refereeing [UEFA] Europa League matches," and "gaining international refereeing experience."

### **3.4.6.3 Extensive referee grounding**

Finally, extensive referee grounding included responses pertaining to English Football League level experience and undertaking high-profile EPL fixtures. As one elite-level referee conveyed, "this is my 16<sup>th</sup> season refereeing [English] professional football [10 years as a Select Group referee]... So I've refereed over 500 games in professional football and over 200 games in the [English] Premier League." (R6)

### **3.4.7 Personal characteristics**

Ten referees articulated the strong emphasis placed on personal characteristics underpinning refereeing excellence. Select Group referees were characterised as performers who, given their professional, EPL status, were approachable and humorous individuals. Several referees stated being "honest" in character and "humble" in regards to their elite-level ability, for example:

I'm just a bog standard, run of the mill, everyday person. I've got no management experience or training... I am just a normal run of the mill lad that enjoys football and enjoys training. I'm just a normal lad with no decent qualifications who can referee a football game. (R8)

### **3.4.8 Superior physical components**

Lastly, four specific physical components were mentioned among Select Group referees as being of paramount significance when officiating EPL fixtures. In particular, four officials acknowledged that the sheer "physical stature" of a referee while on the field of play was a crucial factor underpinning excellence. As one Select Group member explained, "I'm a great believer in stature... What I mean by stature is that the more successful referees will always be six feet plus because you can actually look someone [a player] in the eye and not look up at them." (R6)

## **3.5 Discussion**

In recent times, sport psychology research and consultancy has begun to acknowledge the importance of a range of sport performers beyond just athletes and coaches (Nevill et al., 2008). With this in mind, the aim of the study was to gain a comprehensive insight into the factors underpinning football officiating excellence by drawing upon the perceptions of EPL referees. Overall, the findings indicated that there was no single dominant factor underpinning football officiating excellence, rather a variety of physical (e.g., superior physical components), environmental (e.g., opportunities to thrive), and psychological (e.g., MT attributes) factors. Thus, the findings offer further support for previous literature, that the attainment of superior sport performance is characterised by a constellation of multidimensional factors (Gould et al., 1999).

Unlike existing football officiating research the participants within the current study emphasised psychological attributes consistently aligned to MT qualities identified in the literature. Indeed, findings acknowledged a consistent overlapping of MT

attributes across various sporting domains (e.g., Bull et al., 2005; Gucciardi et al., 2008). Central to this theme, referees expressed having robust self-belief, which supports extant literature identifying and ranking self-belief as the most commonly cited MT attribute (Gucciardi et al., 2008; Jones et al., 2002; Thelwell et al., 2005). Given that EPL referees are renowned for having to deal with very short-tempered and often objectionable individuals (e.g., players, managers), robust self-belief was characterised as a set of qualities, protective and durable in nature (e.g., trust in decision-making, courage of convictions). With mentally tough performers cited as being able to cope effectively with performance-related pressures (Bull et al., 2005; Jones et al., 2002), it was not a surprise that one MT attribute emerged relating to coping with pressure (e.g., coping with match-day pressures, consistent level of high-performance). However, it is anticipated that handling the global exposure and media scrutiny pressures associated with elite-level football are referee-specific to the EPL and similar high-profile competitions (e.g., FIFA World Cup, Spanish Primera División). To this end, further research is warranted to understand how this sporting environment shaped the various MT attributes cited by EPL referees.

Effective game management qualities were also cited as a critical factor underpinning performance excellence of EPL referees. A key finding to emerge was the extent to which non-verbal communication skills (e.g., ability to read players' body language, conveying positive body language) were perceived to contribute to football officiating excellence. In particular, referees revealed that actively listening to players and managers during competition was a key component when building rapport. Given the increasing level of on-field interaction with international and non-native English-speaking football professionals (i.e., managers, coaches, and players), these non-verbal skills might well be unique to EPL referees. Congruent with previous elite sport officiating research (e.g., Mascarenhas et al., 2005a; Mellick et al., 2005), EPL referees



also utilised a variety of verbal communication techniques. For example, when establishing professional referee-player relationships, officials used players and managers' language and addressed all personnel by first name or shirt number during competition.

Match-day officials' team cohesion (i.e., referee, assistant referees, and fourth-official) was perceived to contribute positively to a shared vision of on-field duties, thus, deemed a factor contributing to performance excellence. In this specific football officiating context, the findings support current sport psychology research that highlights a strong correlation between team cohesion and sporting success (Carron, Bray, & Eys, 2002). Given the growing on-field co-operation between referees, assistant referees, and the provisional integration of additional assistant referees at the international level, this finding provides further insight into the specific roles of elite officials on decision-making accuracy (Catteeuw, Helsen, Gilis, & Wagemans, 2009). Taken together, findings indicate that additional research is warranted to determine the effects of football match-day officials' team cohesion, task familiarity, and role clarity on objective performance measures (e.g., disciplinary control, decision-making and accuracy, teamwork).

Over recent years, it has been well documented that elite performers report the role of social support when attaining optimal levels of sporting excellence (e.g., Hays, Maynard, Thomas, & Bawden, 2007). The results of this study confirm the multidimensional conceptualisation of sport-relevant social support (Rees & Hardy, 2000), and the perceived effectiveness of psychological assistance on elite performance (Freeman & Rees, 2009). In accordance, close family members, friends, and peers were acknowledged as being instrumental in providing emotional and psychological support to elite referees. This finding, therefore, differs from previous factors associated with football officiating excellence (e.g., Mascarenhas et al., 2006), by identifying the



importance of significant individuals and their contributing roles. Given the challenging duties undertaken by EPL referees, the identification of support networks that assist and/or impede performance throughout their formative years might prove a beneficial line of future research.

### **3.5.1 Strengths and limitations**

A strength of the present study was the sample of elite football officials investigated. In particular, this sample of referees performs in one of the most competitive and globally-exposed football leagues in the world. Thus, gaining in-depth accounts from EPL referees offered a unique insight into factors underpinning football officiating excellence. However, triangulating the findings across a sample of elite football managers, players, and/or referee coaches would further enhance the understanding of officiating excellence. A second strength, in part, was the prospective design of this study. The 12 active participants within the sample corresponded to 75% of the total number currently officiating in the EPL. Consequently, by gaining the perceptions of these individuals it is believed that potential methodological limitations (e.g., memory bias) associated with retrospective studies (Brewer, Vose, Van Raalte, & Petitpas, 2011) were alleviated. It is important to note that the study protocol was designed to provide an EPL refereeing perspective of football officiating excellence. Given that there are vast cultural differences between team invasion sport athletes, there is likely to be similar differences in officials. As a result, the findings in their entirety, might not generalise to elite referees, umpires, or officials participating in other similar team invasion sports.

### **3.5.2 Applied implications**

Confirming previous EPL refereeing research (Weston et al., 2006), it was not a surprise that superior physical components were considered an important factor (e.g., peak physical fitness levels). However, unique to the study findings were MT attributes

(e.g., achievement striving, resilience, sport intelligence) perceived to underpin football officiating excellence. This finding might well be a key element when addressing recent calls to develop successful, performance-based, football refereeing training programmes (e.g., Gilis et al., 2009). Therefore, it is suggested that sport psychology consultants designing effective programmes should consider the development of these specific psychological attributes. In doing so, structuring and implementing challenging, group-orientated, training-ground strategies throughout the developmental-pathway is encouraged. Along these lines, educating developing football officials about the MT attributes cited by EPL referees might be one effective strategy. Furthermore, early career referees should become increasingly familiar and be exposed to similar environmental conditions as those experienced by elite football referees (e.g., exposure to elite-level match-day pressures, heightened levels of performance scrutiny, international experience) in a bid to develop MT attributes.

Results acknowledged that EPL referees received social support from a host of sporting (e.g., peers) and non-sporting individuals (e.g., parents). Therefore, when implementing long-term, development programmes and formalising the mentoring process, educating these key personnel of the specific forms of effective and ineffective social support is a necessary component. In doing so, incorporating psycho-education workshops within referee development programmes will likely prove to be a worthwhile endeavour. Indeed, previous research has highlighted the potential psychological benefits of this particular initiative within an athletic context (Gould et al., 2002). Finally, a notable emphasis was placed on establishing player and manager respect (e.g., empathy for players) when successfully officiating EPL matches. It is anticipated that the use of effective communication skills not only during, but pre and post-competition might allow referees to continually build rapport with players and managers, and further enhance this working relationship. In accordance, sport psychology consultants could

well assist in this process when devising such methods of effective communication (e.g., formal face-to-face discussions with football key stakeholders prior to kick-off).

### **3.6 Concluding Remarks**

The findings of this study have furthered the understanding of the factors perceived to be important in the performance of elite football officials. While findings support previous sport officiating literature the unique factors found offer a step forward in characterising football officiating excellence (e.g., multifaceted pre-match preparation, performance-level enhancement, opportunities to thrive). In particular, it is clear that EPL referees rely on various MT attributes to deal with the many demands in this elite-level football environment. Finally, these findings have implications for the way sport psychology consultants work when enhancing effective referee development.

## CHAPTER IV

### Study Two

#### *Understanding Mental Toughness in Elite Football Officiating: Perceptions of English Premier League Referees<sup>2</sup>*

##### 4.1 Introduction

The pursuit of athletic excellence has led to considerable attention directed towards the construct of MT (e.g., Bull et al., 2005; Jones et al., 2002; 2007; Thelwell et al., 2005). Within current sport psychology literature, MT attributes are now regarded as an indispensable psychological factor (Gucciardi et al., 2008). Interestingly, investigations have at times reported differences in MT attributes of athletes across sport-general and sport-specific domains (Anderson, 2011). However, given these variations, Gucciardi, Mallett, Hanrahan, and Gordon (2011) suggest that a consistent group of core MT attributes is now emerging within the literature (e.g., success mindset, resilience, handle challenge, context intelligence). Supporting this notion, researchers have recently achieved similar findings when gaining the perspectives of ultra-endurance runners (Crust, Nesti, & Bond, 2010) and US National Collegiate Athletic Association (NCAA) student-athletes (Butt, Weinberg, & Culp, 2010). Taken together, the research highlights that MT attributes are not only required in elite and super-elite individuals, but also in a wide range of high-achieving athletic participants.

Expanding on the current influx of MT research, significant conceptual (see Figures 2.1 and 2.2) and definitional advancements have developed (Jones et al., 2002; Gucciardi et al., 2009b). It is important to note, that prior to these progressions MT was regarded as an umbrella term linked with a host a variable definitions (e.g., Alderman, 1974; Bull et

---

<sup>2</sup> The study reported in this chapter has been accepted for publication: Slack, L. A., Butt, J., Maynard, I. W., & Olusoga, P. (in press). Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees. *Sport and Exercise Psychology Review*.

al., 1996; Fourie & Potgieter, 2001; Goldberg, 1998; Loehr, 1982). Supplementing these advancements, investigations have begun to explore under what sporting conditions MT attributes are warranted. In particular, Gucciardi and colleagues (Gucciardi et al., 2008) identified 11 MT attributes throughout a host of general and competition-specific situations that required MT within Australian rules football. Specifically, findings suggested that a wide range of both negatively (e.g., dealing with injury) and positively (e.g., preparation for competition) perceived situations demanded MT. Results also identified key behaviours deployed by Australian rules footballers in on-field situations (e.g., consistent high levels of performance, game anticipation). In accordance, Gucciardi and colleagues (Gucciardi, Gordon, & Dimmock, 2009b) developed a process and outcome model of MT, theoretically driven by PCP (Kelly, 1955; 1991). In addition, Gucciardi et al. (2009b) provided a rigorous definition of MT which, subsequently, has been refined by Coulter, Mallett, and Gucciardi (2010, pg. 715):

Mental Toughness is the presence of some or the entire collection of experientially developed and inherent values, attitudes, emotions, cognitions, and behaviours that influence the way in which an individual approaches, responds to, and appraises both negatively and positively construed pressures, challenges, and adversities to consistently achieve his or her goals.

Accompanying this revision, Coulter et al. (2010) examined mentally tough situations, behaviours, and cognitions, when investigating the perceptions of athletes, coaches, and parents in the context of Australian soccer. In particular, situations demanding MT included performance (e.g., accepting poor refereeing decisions) and off-field related situations (e.g., balancing commitments). Moreover, findings acknowledged a superior set of behaviours (e.g., blocking attempts at goal from opposing players) and cognitions (e.g., positive self-talk) associated with MT. With this in mind, research has leant towards characterising MT as athletes being able to deal effectively with performance difficulties (e.g., being de-selected), as well as thrive

within challenging situations (e.g., maintaining a winning run) throughout competition (Connaughton & Hanton, 2009).

However, a limitation concerning this literature is that it is still relatively representative of the athletic domain. Indeed, Crust (2008) called for further research to examine performers in a range of sporting contexts in an effort to gain additional understanding of MT. As previously discussed and central to this athletic representation, a notable emphasis has been placed on understanding MT in elite-level soccer (e.g., Coulter et al., 2010; Thelwell et al., 2005). Nevertheless, given the narrow focus on players, previous research has failed, in the most part, to acknowledge other performers (e.g., managers) operating within this sport whereby MT might also be important. Accordingly, one study that has provided a starting point for studying MT in other active on-field performers was conducted by Slack, Maynard, Butt, & Olusoga (2013). When interviewing 15 elite English football referees, Slack et al. (2013) identified numerous factors that underpinned officiating excellence (e.g., effective game management qualities, support networks and services, opportunities to thrive). Interestingly, in this study the authors reported a group of MT attributes when characterising excellence: (a) coping with pressure (e.g., coping with match-day pressures), (b) achievement striving (e.g., high performance goals), (c) resilience (e.g., not dwelling on decisions), (d) high work-ethic (give 100% in every game), (e) robust self-belief (e.g., trust in decision-making), (f) tough attitude (e.g., make sacrifices), and, (g) sport intelligence (e.g., a feeling for the game). It is important to note, while these MT attributes did overlap with MT attributes reported in research with other sports (e.g., Jones et al., 2002; Gucciardi et al., 2008), findings also acknowledged attributes specific to elite football officiating. The findings reported by Slack et al. (2013) demonstrate that MT attributes play an important role in officiating excellence.

With this in mind, research further conceptualising MT in elite football officiating would broaden the breadth and depth of existing literature in this area. Given the unique duties carried out by officials in comparison to athletes (e.g., control of match procedures; Mascarenhas et al., 2006), by identifying situations requiring MT, it is anticipated that mentally tough referees might possess distinctive behaviours and cognitions as previously identified in athlete research (e.g., Coulter et al., 2010; Gucciardi et al., 2008). Collectively, from a conceptual perspective, it appears that while there are shared attributes of MT across specific sports and contexts (e.g., elite athletes, student-athletes, footballers, cricketers, football officials), there are also attributes unique to each sport and the respective roles played. Further, athlete research has started to demonstrate that the link between situations, behaviours, and cognitions (e.g., Coulter et al., 2010) is critical to enhancing the understanding of MT and how attributes can be used and developed. Accordingly, the present study examined the link between situations requiring MT and behaviours and cognitions employed in elite football officiating.

## **4.2 Study Purposes**

This type of research is significant for MT specialists (i.e., MT researchers and consultants) to understand the role-specific nature of MT and also to understand its role-specific development. Furthermore, throughout situations requiring MT, the identification and utilisation of behavioural and cognitive components is believed to be a vital prerequisite of sport-specific MT interventions aimed at developing MT (Connaughton, Thelwell, & Hanton, 2011). Indeed, this understanding is believed to be the structural underpinning that distinguishes MT interventions over more traditional PST programmes (Connaughton et al., 2011). To this end, the purpose of the study was to: (a) identify situations perceived by elite football referees to require MT, and, (b) document the associated behaviours and cognitions utilised by referees within these situations.

## **4.3 Method**

### **4.3.1 Participants**

Following completion of institutional ethics procedures (see Appendix D), 15 EPL football referees ( $M_{\text{age}} = 42$  years) used within a previous study (Slack et al., 2013) were re-interviewed face-to-face ( $N=11$ ) or via telephone ( $N=4$ ). Participants were active ( $N=12$ ) or recently retired Select Group referees ( $N=3$ ; retired within the last 24 months of interviewing). Select Group referees are a full-time, professional panel appointed by PGMOL to officiate football matches in the EPL. Referees reported an average of 6.87 years EPL football experience, and had refereed 1892 ( $M_{\text{matches}} = 126.13$ ) matches collectively at the elite-level.

### **4.3.2 Procedure**

Permission was granted and logistical assistance gained for participant recruitment by the PGMOL. Referees were contacted via email and/or phone and invited to participate in the study. Each referee was informed of participant requirements and confidentiality, as well as the right to withdraw from the study at any point (see Appendix D). To provide a suitable conceptual foundation in which to explore MT, a definition of MT (i.e., Coulter et al., 2010, pg. 715) was provided to all participants prior to the interviews. In addition, to familiarise participants with the study purposes, a summary of the MT attributes generated from Slack et al.'s (2013) findings was also provided. Face-to-face interviews were conducted at Select Group training camps and telephone interviews were carried out at a date and time most convenient for each referee.

### **4.3.3 Interview guide**

A semi-structured interview guide was derived from current MT literature (i.e., Coulter et al., 2010) and consisted of a series of open-ended, non-leading questions (Patton, 2002). Questions were designed to explore MT in elite football officiating and comprised: (a) situations requiring MT (e.g., "can you identify competition-specific/off-



field situations that you feel require MT?"), (b) what do you do during situations requiring MT (e.g., "how do you behave during [situation]?"), and, (c) what cognitions do you deploy throughout situations requiring MT (e.g., "what are your thoughts during [situation]?"). In addition, elaboration probes (e.g., "what it is about this [situation, behaviour, cognition] that considers it to be related to MT?") were implemented throughout the duration of interviews to obtain an in-depth understanding of MT (Patton, 2002), (see Appendix E).

#### **4.3.4 Data analysis**

Interviews lasted approximately 40 minutes, were digitally audio recorded and transcribed verbatim (see Appendix F). Three members of the research team independently examined the interview transcripts to ensure the content was comprehensively understood. At that point, following Miles and Huberman's (1994) procedures carried out in previous applied sport psychology research (Greenleaf et al., 2001), deductive content analysis was deployed. Raw-data themes representing situations requiring MT were listed as quotes or paraphrased quotes (Maykut & Morehouse, 1994), and deductively categorised into either competition-specific (e.g., manager confrontation at half-time) or off-field situations (e.g., dealing with injury/illness). In accordance with these situations, each corresponding behaviour (e.g., clear commands and signals) and cognition (e.g., trust in decisions) identified was associated with a MT attribute (e.g., robust self-belief) from a previous study (Slack et al., 2013). The analysis then moved from deductive procedures to solely inductive procedures. Consistent with recommendations outlined by Patton (2002), similar raw-data themes representing situations requiring MT (e.g., projecting a professional image, gaining respect from peers, onset of refereeing retirement) were then inductively organised into lower-order themes (e.g., Select Group pressures). The identification of lower-order themes similar in meaning (e.g., Select Group pressures, schedule and travel

demands, refereeing setbacks) were organised to form higher-order themes (e.g., general elite refereeing situations).

### **4.3.5 Trustworthiness criteria**

As recommended by Lincoln and Guba (1985), procedures to obtain trustworthiness were undertaken. First, researcher triangulation comprised of a sequence of team meetings until all discussions had reached a consensus on all raw-data, lower-order, and higher-order themes representing situations requiring MT. Second, a member of the research team exempt from the content analysis procedures continually queried decisions made on the content and structure of all the findings. Finally, member-checking was undertaken to ensure accuracy of the findings. Each participant received a document outlining the results. As part of this member-checking procedure, participants were asked to authenticate (via email or in person) the findings in their entirety. With only minor amendments made, participant feedback deemed that the findings accurately represented MT in elite English football officiating (see Figures 4.1, 4.2, 4.3, 4.4, and 4.5).

## **4.4 Results**

The present study investigated MT in elite football officiating. The findings were discussed in specific sub-sections in accordance with the aims of the study and illustrated in Figures 4.1, 4.2, 4.3, and 4.4. In addition, the percentage of each raw-data, lower, and higher-order theme cited by referees as situations demanding MT were shown in parentheses. Finally, descriptive quotes were labelled with a referee ID number (e.g., Referee 2 = R2, etc.).

### **4.4.1 Competition-specific situations requiring Mental Toughness**

In total, 33 raw-data themes emerged from the 15 transcribed interviews. These responses were assembled into 9 lower-order and three higher-order themes outlining competition-specific situations perceived to require MT in elite football officiating (see Figure 4.1). The higher-order themes included: (a) pre-match situations, (b) during-match situations, and, (c) post-match situations.

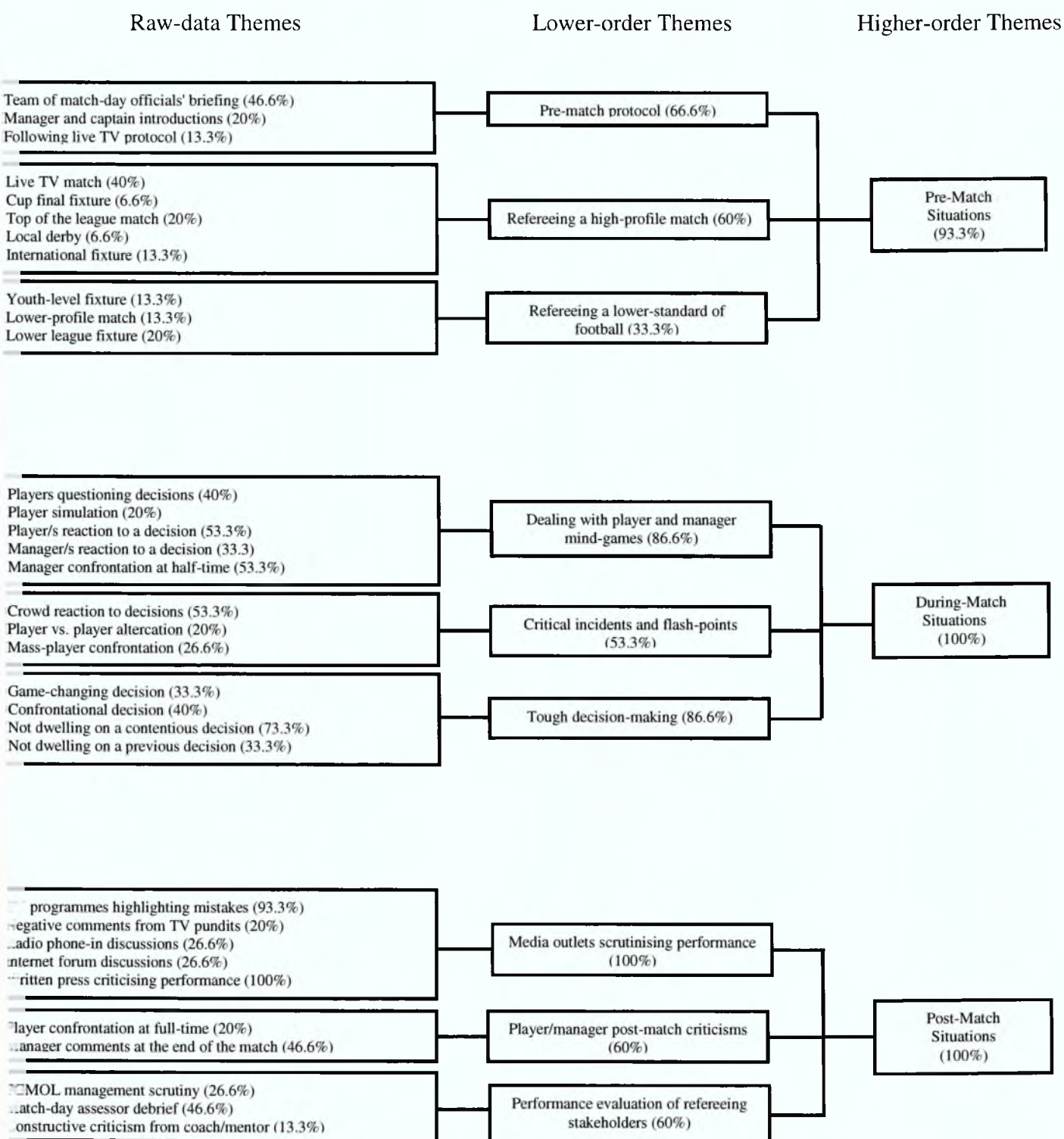


Figure 4.1 Raw-data, lower-order, and higher-order themes for competition-specific situations perceived to require Mental Toughness in elite football officiating.

#### **4.4.1.1 Pre-match situations**

Within this higher-order theme, 14 referees identified several pre-match incidents requiring MT. Specifically, these incidents revolved around meeting and talking to key individuals (e.g., manager and captain introductions) when setting the precedent of competition regularities, and adhering to live TV protocol prior to kick-off. Further, nine officials highlighted that refereeing a high-profile match (e.g., Cup final fixture) where the outcome of the result had a notable impact demanded MT. In contrast, several referees discussed officiating matches (e.g., lower league fixture) in which the standard of ability and interest inferior to an EPL fixture also required MT. As one referee explained:

If I do a [English Football] League Two game, it's still a big game. The fans expect me to referee like I do on the [English] Premier League. They expect to see an athlete, they expect to see a referee who's in control of proceedings, who can make decisions, and who can manage players. Also, it's their [managers and players] livelihood and everything that goes with that. (R6)

#### **4.4.1.2 During-match situations**

All 15 Select Group referees demonstrated that MT was needed during specific on-field encounters. Referees highlighted that dealing with player and manager mind-games consisted of a wide range of verbal (e.g., players questioning decisions) and non-verbal actions (e.g., manager/s reaction to a decision). The following quote fully illustrates dealing with manager confrontation at half-time:

You get managers at half-time who wait in the tunnel for you saying they've seen it on TV or seen it [incident] on DVD. Sometimes you have one manager saying he's seen it on TV and another manager saying that he hasn't... So managers try and throw doubt into your mind and try and put pressure on you for the second-half. (R3)

In addition, tough decision-making was considered a significant element during competition that required MT. EPL referees discussed a "confrontational decision," "not dwelling on a contentious decision," and a "game-changing decision," for example:

If you take red card incidents and serious foul-play incidents, it's about a referee seeing, recognising, and acting on the incident. It's knowing that this may be an unpopular decision, but it's the "Laws of the Game"... And it's that mental toughness to act. (R5)

Critical incidents and flash-points were also perceived as situations demanding MT during play. This included player vs. player altercation, mass-player confrontation, and crowd reaction to decisions. One Select Group referee stated, "you might go to X [EPL football stadium] and 72,500 out of 75,000 people support one team... So you get 72,500 shouting at you and your match-officials at the same time." (R1)

#### **4.4.1.3 Post-match situations**

Three post-match lower-order themes emerged from the interviews where referees felt MT was required and comprised: (a) media outlets scrutinising performance, (b) player/manager post-match criticisms, and, (c) performance evaluation of refereeing stakeholders. Media outlets were characterised as a host of written, TV, radio, and Internet sources negatively evaluating referees' performance. As one Select Group official conveyed:

At the [English] Premier League level there's all the media. Not just the back pages of the papers [written press] but 24-hour TV programmes. You know that any fundamental mistake doesn't just make the headlines in National [British] papers, but the headlines across the world. By Saturday night at 7pm that mistake will be shown all across the world. (R14)

Similarly, nine referees revealed that the extensive amount of performance feedback of refereeing stakeholders warranted MT. Notably, specific personnel included: (a) match-day assessor debrief, (b) PGMOL management scrutiny, (c) and constructive criticism from coach/mentor.

#### **4.4.2 Off-field situations requiring Mental Toughness**

In comparison to competition-specific encounters, 37 raw-data themes characterising off-field situations emerged from the data analysis procedures. Responses were compiled into eight lower-order and two higher-order themes perceived to require

MT in elite football officiating (see Figure 4.2). The higher-order themes included: (a) general elite refereeing situations, and, (b) general-life situations.

#### **4.4.2.1 General elite refereeing situations**

Within this higher-order theme, all 15 referees recognised the importance of five lower-order themes perceived to demand MT within general forms of elite football officiating: (a) Select Group pressures, (b) schedule and travel demands, (c) transition to elite-level football refereeing, (d) performance growth, and, (e) refereeing setbacks. It was apparent that just like the professionals they officiate, the referees themselves were highly competitive. In accordance, all 15 referees illustrated the need to deal with seven within-group pressures characterised in part as "Select Group (peer) competition." For example, one referee noted:

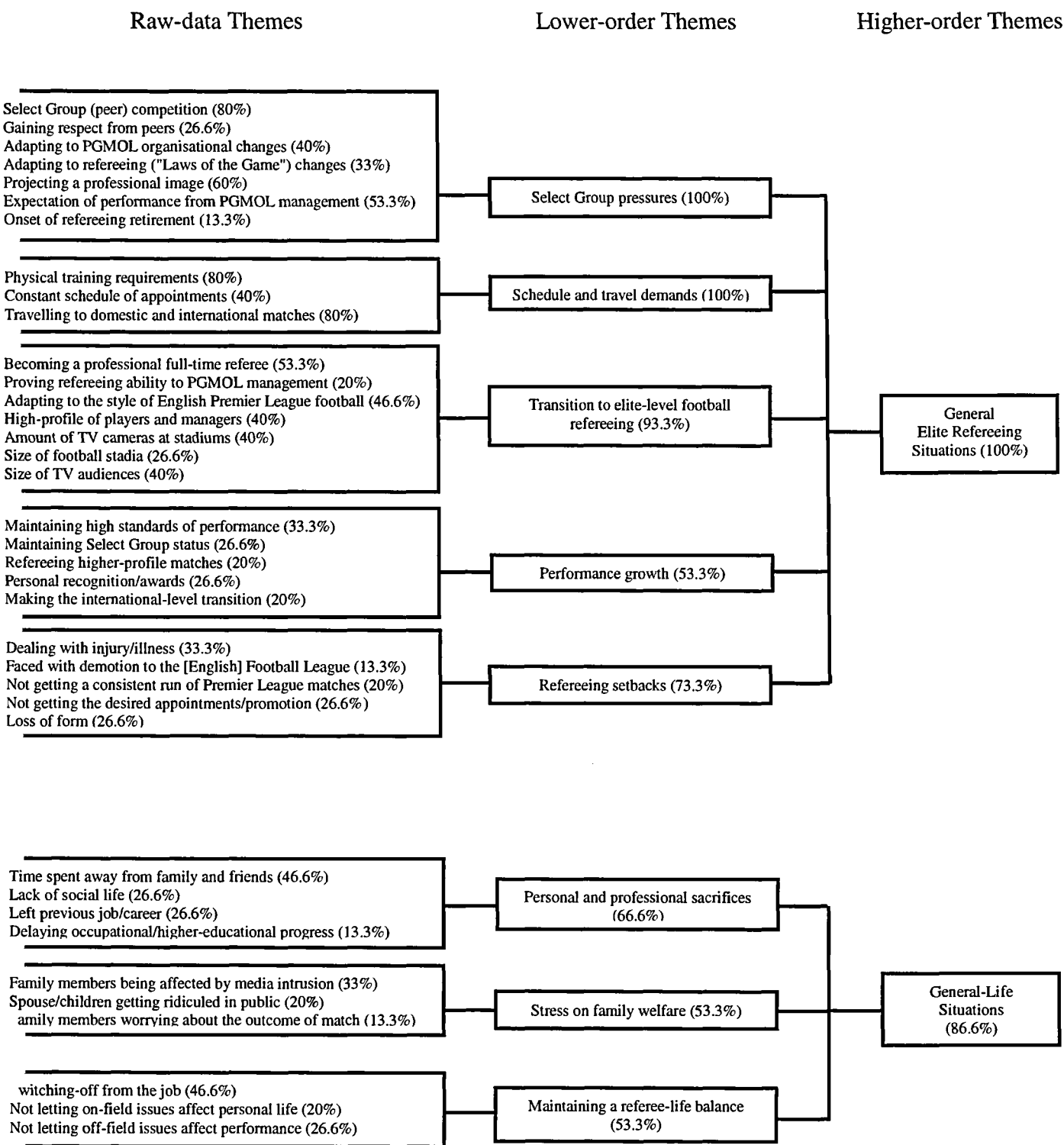
There are only 16 [EPL] referees this season [2010-2011]. As the Select Group, we are all very competitive and determined guys... We are all want to referee The FA Cup Final, the Football League Cup Final, [The FA] Community Shield, The FA Trophy, and The FA Youth Cup. So there are all those things to aim for and you want to be in pole position. (R4)

Moreover, given their professional status, referees frequently mentioned various environmental pressures on performance (e.g., adapting to refereeing ["Laws of the Game"] changes). In line with this, a strong emphasis was placed on "projecting a professional image" that required MT in elite football officiating:

You're talking about a very small percentage of referees in the Country that are elite referees. So to be in that 16 [Select Group] you're an ambassador for the Select Group, The FA, and the PGMOL wherever you go in the World, so you've got to be presented right... It's about what you say, where you say it, how you say it, how you perform on-the-field, and how you behave off-the-field. (R5)

Indicative of the elite officiating domain, referees generically discussed several schedule and travel demands including the "constant schedule of appointments," "travelling to domestic and international matches," as stated by one official:

I've done nine trips into Europe this year, so you end up flying on one day; you have a [International] match on the second day, you fly back the following day, and then you have a [EPL] match at the weekend. So the



*Figure 4.2* Raw-data, lower-order, and higher-order themes for off-field situations perceived to require Mental Toughness in elite football officiating.

*Note:* Percentage (%) represents the fraction of participants within the sample that cited a particular raw-data, lower-order, and higher-order theme.



demands are not necessarily just on your refereeing performance but also on the travelling as well. (R8)

With 12 referees also highlighting the physical training requirements that warranted MT, for example:

The physical training can be tough at times because we train like athletes now... We do different types of training activities through the week, so Mondays are strength and conditioning days, Tuesdays are high-intensity sessions, with Wednesdays and Thursdays usually speed and agility work... So I'm pushing my body all the time and the older you get the harder it gets. (R3)

Just over half of the sample involved in the study revealed how performing consistently well over time at the elite-level required MT. Specifically, this lower-order theme was labelled as performance growth and encompassed: (a) making the international-level transition, (b) refereeing higher-profile matches, (c) personal recognition/awards, and, (d) maintaining Select Group status. In contrast, referees also discussed a wide range of mentally tough situations relating to refereeing setbacks. In particular, two officials talked about being "faced with demotion to the [English] Football League," five mentioned "dealing with injury/illness," and four illustrated "not getting a consistent run of [English] Premier League matches," for example:

I went through my first season [as a Select Group referee] where I was told I would referee five [English] Premier League matches and 25 [English] Football League matches... And might be fourth-official 35 times during the season as well. So when you weren't refereeing... It's pretty disappointing not to be involved [refereeing an EPL fixture] each week. (R6)

#### **4.4.2.2 General-life situations**

All but two of the participants acknowledged a host of general-life issues to demand MT away from elite football officiating. Overall, three lower-order themes emerged and comprised: (a) personal and professional sacrifices, (b) stress on family welfare, and, (c) maintaining a referee-life balance. Notably, Select Group referees highlighted "time spent away from family friends," "lack of social life," and "left a



previous job/career" in characterising personal and professional sacrifices that required

MT. One referee discussed delaying occupational progress:

When I was up for a contract with the PGMOL to become a Select Group referee I was a full-time serving Police Officer... And realising the difficulties involved in combining being both a Police Officer and a Select Group referee I managed to get my [police] hours down to 20 from 40 hours a week. That continued for <sup>x</sup> years until April 20<sup>xx</sup>, when I decided that the demands of [English] Premier League football meant that I wasn't really doing justice to my Police work... So I started a career break in 20<sup>xx</sup> to concentrate solely on my refereeing. (R13)

Also, given the rigour and wider impact of EPL football on referees, eight officials felt that the stress on family welfare was perceived to warrant MT. Referees revealed that "family members being affected by media intrusion," as well as "spouse/children getting ridiculed in public" were critical situations. The latter instance was fully portrayed by quotes such as:

If you've heard a lot about your refereeing performance in the media, it affects the wife and she gets it at work and the kids get it at school. The kids come home and say "Dad what's all this about your game at the weekend?" (R2)

Finally, it was also evident that there was a need to maintain a referee-life balance when officiating elite-level competition. Specifically, seven referees recalled "switching-off from the job," as well as three acknowledging "not letting on-field issues affect personal life," to demand MT.

#### **4.4.3 Mental Toughness behaviours**

Throughout competition-specific and off-field situations demanding MT, it was evident that mentally tough referees deployed a constellation of adaptive patterns of behaviour (see Figures 4.3 and 4.4). Central to these behaviours, referees highlighted that "looking calm and composed," "explaining ground rules to teams," as well as "appropriate level of team analysis" prior to a high-profile match were paramount. In line with this, irrespective of the football fixture undertaken, officials adopted "consistent preparation" as well as "image management." In addition, it was apparent

Situations Requiring Mental Toughness		Mental Toughness		
Higher-order Themes	Lower-order Themes	Behaviours	Cognitions	Attributes
Pre-Match Situations	Pre-match protocol	Looking calm and composed	Awareness of own emotions Draw upon refereeing experiences Put match into perspective Thrive on the atmosphere of a big crowd	Coping with Pressure
	Refereeing a high-profile match			
	Refereeing a lower-standard of football	Appropriate level of team analysis Consistent preparation Explaining ground rules to teams Outline officials' expectations Image management	Confidence in officials' ability Confidence in own ability  Focused on performance goals	Robust Self-Belief  Tough Attitude
During-Match Situations	Dealing with player and manager mind-games	Looking calm and composed	Awareness of own emotions Block-out crowd noise Draw upon life experiences Draw upon refereeing experiences	Coping with Pressure
		Work hard [18 yard] box-to-box		
	Critical incidents and flash-points	Clear commands and signals Make eye-contact with player/s Strong body language	Focus in blocks of five minutes Focus on the next decision Park-up/bin a decision	Resilience
	Tough decision-making	Act as a barrier between players Create on-field time for yourself	Trust in decisions  Awareness of players' emotions Tactical awareness	Robust Self-Belief  Sport Intelligence
Post-Match Situations	Media outlets scrutinising performance	Identify developmental areas Take on board constructive feedback	Draw upon refereeing experiences Put match into perspective	Achievement Striving  Coping with Pressure
	Player/manager post-match criticisms	Do not read or listen to media Looking calm and composed	Bank positives and move forward Not taking criticism personally Turn negatives into positives	Resilience
	Performance evaluation of refereeing stakeholders	Clear commands and signals Strong body language		Robust Self-Belief

*Figure 4.3* Competition-specific situations perceived to require Mental Toughness and the associated MT attributes, behaviours, and cognitions utilised in elite football officiating.

that prior to any given match referees clearly outlined team of match-day officials' expectations, as noted by one referee, "when you're managing your own team [match-day officials] it's setting the standards before you've even gone out on a game... It's being the captain of a team, the leader of a team." (R2)

In response to situations requiring MT on the field of play, numerous mentally tough behaviours were highlighted and included: (a) clear commands and signals, (b) work hard [18 yard] box-to-box, (c) strong body language, (d) create on-field time for yourself, and, (e) make eye-contact with player/s. One referee recalled the use of several of these behaviours when dealing with players questioning decisions:

Players will test you, so you have to stand-up to them, have strong body language, and look them in the eye... Players will keep on criticising or questioning every decision. Then you say right enough is enough, you've questioned enough and I've had enough now. (R12)

In addition, looking calm and composed throughout on-field situations demanding MT and in particular a confrontational decision was acknowledged as a mentally tough behaviour. As one referee illustrated:

It's about looking calm, it's like the floating swan, floating along a river maybe paddling like hell underneath the water... But it's having that calm outward persona, and not flapping while others are losing their heads around you. So it's taking a deep breath and having that calming influence on the players. (R5)

Moreover, post-match situations requiring MT were key features throughout match-day appointments. Notably, mentally tough referees mentioned several behavioural actions (e.g., identify developmental areas, strong body language) when analysing their match-day assessor debrief. In line with this, one referee illustrated taking on board constructive feedback:

You've got to accept the [refereeing stakeholders] scrutiny as part of the job... It's knowing what is good advice, knowing what isn't, and taking the good bits on board. Throughout your [match-day assessor] debrief you will look at it, break it down, and pick the things that will enable you to improve your performance. (R9)

The nature of EPL competition was acknowledged throughout the higher-order theme of general elite refereeing situations. In particular, officials talked in detail regarding how they dealt with the extensive refereeing agenda, along with the travel commitments undertaken. Encapsulating this lower-order theme, mentally tough referees discussed how they use "effective time-management" throughout the season, for example:

Well the schedule is just non-stop at the minute and as well as everything that we are doing at the moment including training and games, it's also the trips in Europe. To make sure you perform in those [matches] you've got to make sure you factor rest time into your schedule. (R10)

In addition, referees acknowledged that maintaining high performance levels, working hard in training and achieving refereeing-career goals characterised MT behaviours in favourable circumstances (e.g., maintaining Select Group status). In not so favourable situations requiring MT (e.g., loss of form), however, MT behaviours consisted of: (a) working hard in training, (b) perform well in next game, and, (c) not rushing back from injury. In particular, the subsequent quote by one official depicts the implementation of re-addressing performance goals when faced with not getting the desired appointments:

You get the odd time when you're a bit down about appointments. You set yourself high standards and go for those high-profile matches, when they do not come off you just try to re-address your goals and try getting them [high-profile matches] the year after. (R2)

Finally, emerging from the data analysis procedures officials talked extensively about how they responded to the demands away from EPL refereeing (e.g., time spent away from family and friends). For example, "distance self from refereeing," and "discuss issues with family members," were all perceived as behavioural responses surrounding everyday life situations requiring MT. As one individual stated:

In a month you may actually only be at home sleeping in your own bed 50-60% of the time, the other 40-50% you may be in an hotel and flying somewhere else. That has a demand on your personal relationships... What

I did was sit down with my kids and explain my job [EPL football refereeing]. (R5)

#### **4.4.4 Mental Toughness cognitions**

In accordance with the higher-order themes requiring MT outlined, mentally tough officials recalled a host of effective cognitions (see Figures 4.3 and 4.4). In particular, it was clear from the interviews that the participants flourished prior to officiating in big stadiums, in which mentally tough individuals perceived to "thrive on the atmosphere of a big crowd" One referee fully illustrated this in the following quote:

I like the atmosphere and I like doing [refereeing] high-profile games, in front of big crowds... It's just the type of person I am, I'd rather do something that mean's something. I think when something's important and something's riding on the game you've got to be on your game. (R1)

Further pre-match cognitions deployed by mentally tough referees throughout high-profile matches included "awareness of own emotions," "confidence in own ability," and "focused on [refereeing] performance goals." For example:

You know that once you cross that white line and you blow that whistle, it doesn't matter if there are 500 TV cameras in the [football] stadium, you switch-off from it. Its blues vs. reds, 11 vs. 11 and that's it... Even the crowd singing or chanting before the game, you're oblivious to it because you are so focused on your performance objectives. (R9)

When handling during-match incidents warranting MT, officials also executed numerous cognitive strategies. Central to these strategies, referees displaying MT were able to draw upon their "tactical awareness" and a vast array of "refereeing experiences." In particular, one referee discussed how their "life experiences" related to similar confrontational situations demanding MT in refereeing:

I'm from a Police background and you just think it's only a game of football and it's just a sport... It's not as if you're going to a car wrapped round a tree or knocking on someone's door and telling them their daughter's been killed in a road traffic accident. It's not the end of the world is it? So the grounding you get in the Police Force means you're used to dealing with people in all sorts of situations... So some of the situations you experience in refereeing, you might have experienced in life and in your profession. So you're able to deal with the Mr nice guy, the Mr angry guy in the same way or the other, as you would when you referee. (R2)

Situations Requiring Mental Toughness		Mental Toughness		
Higher-order Themes	Lower-order Themes	Behaviours	Cognitions	Attributes
General Elite Refereeing Situations	Select Group pressures	Achieving refereeing-career goals Identify developmental areas Take on board constructive feedback	Bank successful performances Maintaining a refereeing-career focus	Achievement Striving
	Schedule and travel demands	Maintaining high performance levels	Accept the demands of the job take time to adjust Draw upon life experiences Draw upon refereeing experiences Put refereeing into perspective	Coping with Pressure
	Transition to elite-level football refereeing	Use all resources available Working hard in training		High Work-Ethic
	Performance growth	Re-address performance goals Performing well in next match	Bank positives and move forward Not taking criticism personally	Resilience
	Refereeing setbacks	Effective time-management Not rushing back from injury Image management	Confidence in own ability  Focused on performance goals	Robust Self-Belief  Tough Attitude
General-Life Situations	Personal and professional sacrifices	Discuss issues with family members Distance self from refereeing	Awareness of family concerns Not becoming obsessed with the job Pigeonhole personal issues Pigeonhole refereeing issues Putting refereeing into perspective	Coping with Pressure
	Stress on Family Welfare			
	Maintaining a referee-life balance	Effective time-management	Accept the sacrifices as part of the job	Tough Attitude

Figure 4.4 Off-field situations perceived to require Mental Toughness and the associated MT attributes, behaviours, and cognitions utilised in elite football officiating.

Mentally tough referees also employed several focus and refocus strategies during competition (e.g., focus in blocks of five minutes, block-out crowd noise). In particular, one referee discussed parking-up a decision when effectively not dwelling on a contentious decision:

For the last 20 minutes of the game on Saturday I've got people left, right, and centre telling me I've made a wrong decision. So I've now got to park that up [decision] and put it right at the back of my mind because I've still got another 30 to 40 decisions to make in this game. (R9)

Within the higher-order theme of post-match situations perceived to demand MT, referees demonstrating MT described their thoughts when receiving performance criticism from various sources (e.g., player confrontation at full-time, manager comments at the end of a match). In line with this, notable cognitions were centred on: (a) put the match into perspective, (b) not taking criticism personally, and, (c) turn negatives into positives. The latter cognition was fully portrayed by statements such as:

Whilst [football] managers criticise you at the end of a match, it's having that ability to let go of that, particularly if a game's not gone well. It's actually taking positives and not dwelling on the negatives... It's taking the learning points and moving forward. (R5)

Off-the-field, officials talked in detail about how they dealt with transitioning to elite-level football refereeing. Specifically, becoming a full-time professional referee, proving refereeing ability to PGMOL management, and adapting to EPL football were all perceived to be transitional situations that required MT. As such, mentally tough officials adopted a host of adaptive cognitions that included: (a) draw upon refereeing experiences, (b) confidence in own ability, and, (c) focused on performance goals.

Given the rigours of this transition, one official suggested that you have to "accept the demands of the job take time to adjust":

Now I've moved into [English] Premier League football I know it's going to take time to establish myself to people [PGMOL management]... So they can understand and trust how I do things. To understand the different kind of demands of the job... I also know it's going to take a while to build that experience to deal with them [demands] as they arise. (R10)

Also capturing the cognitions deployed within the higher-order theme of general elite refereeing situations, referees spoke about "maintaining a refereeing-career focus," and "focused on performance goals" throughout progressive circumstances requiring MT. Notably, when refereeing higher-profile matches one mentally tough official illustrated how he banks successful performances:

I know that I can referee these [EPL] matches because I have refereed these matches well before. I've done them many times and that just breeds confidence. I say "I've already done that type of match and I'll bank that one"... And you just sit down and think I've refereed some big matches. (R2)

Moreover, referees also highlighted various MT cognitions when dealing with refereeing setbacks. In particular, "not taking criticism personally," "bank positives and move forward," and "draw upon refereeing experiences" were highlighted. For example, one referee discussed confidence in own ability when faced with not getting a consistent run of EPL matches:

I only refereed seven [English] Premier League matches in the whole of that season [20<sup>XX</sup>-20<sup>XX</sup>]. Kept dipping in and out of [EPL] matches and then the second season followed in more or less the same pattern. So I only refereed six matches in the following season. So I'd refereed 13 [English] Premier League matches in two seasons. So I was thinking that all I need is a run of [EPL] matches because I knew I was good enough to referee at this level. (R9)

Finally, within the general-life higher-order theme, frequently acknowledged cognitions among mentally tough officials included: (a) pigeonhole personal issues, (b) awareness of family concerns, and, (c) put refereeing into perspective. In accordance, a strong emphasis was placed on not becoming obsessed with the job, for example, "you have to forget about [EPL football] refereeing at times... The fact is that on Monday you need to put refereeing to one side and have 24 hours out of it." (R7)

## **4.5 Discussion**

By drawing upon the perceptions of EPL referees, the purpose of the present study was to gain a detailed account of MT in elite football officiating. In total, 70 situations requiring MT were identified and converged into five higher-order themes (see Figures



4.1 and 4.2). The findings supplement existing research and indicate that elite athletes as well as officials within this sport perceive some common MT situations (e.g., Coulter et al., 2010). However, it is important to note that there were numerous situations found to be role-specific to football refereeing. With referees sanctioning over 100 observable decisions in any one match (Helsen & Bultynck, 2004) findings identified particular types of decisions that required MT during competition (i.e., game-changing decision and confrontational decision). In line with this, officials highlighted several situations that required MT prior to (e.g., mass-player confrontation, player vs. player altercation) and immediately following decisions (e.g., player/s reaction to a decision, not dwelling on a contentious decision, crowd reaction to decisions). In addition, there were situations that occurred throughout the 15 minute half-time period requiring MT (e.g., manager confrontation at half-time). Taken together, results indicate that situations requiring MT are warranted throughout both active (i.e., live play) and non-active (i.e., breaks in play) phases of competition.

Taking the day of competition in its entirety, one of the most prominent findings was the extent to which pre-match situations were emphasised. Central to this higher-order theme, referees perceived a variety of situations requiring MT and also ones that extended well beyond the 90 minutes of on-field performance. This finding holds considerable importance concerning the temporal nature of MT in sport. Indeed, when taking into account pre and post-match situations, football referees are exposed to both thrive (e.g., following live TV protocol) and survive-orientated (e.g., written press criticising performance) situations requiring MT during a match-day. This extends Bull et al.'s (2005) findings when characterising the determinants of "chronic" MT.

Accordingly, in the long-term, just like players, referees have to perform at high levels week in, week out, season in, season out, over many seasons. However, specific to elite football referees' duties carried out, a form of chronic MT is necessary throughout a

prolonged one-day period. In summary, these findings expand current literature conceptualising the "state-specific" nature of situations demanding MT during elite sport competition (e.g., Coulter et al., 2010; Gucciardi et al., 2008).

The inclusion of the elite football officiating perspective is believed to mark an important contribution to the progressive scientific study of MT. Central to this contribution is the identification of an exhaustive list of off-field situations that require MT at the elite-level. Notably, numerous officials highlighted that transitioning to elite-level refereeing was a critical situation (e.g., becoming a professional full-time referee). To some extent, the nature of this transition might well be unique to officiating in football, given that referees tend to reach the elite-level at an older age than players (Castagna, Abt, D'Ottavio, & Weston, 2005). Of additional interest, several participants involved in this study performed their duties at the super-elite level (i.e., FIFA International Referees List). In line with this, transitioning to international competition in which referees would undertake fixtures at a European and World-level was also considered a circumstance that warranted MT. These findings support previous research conceptualising sport transitions not only as undesirable experiences but also situations that are challenging and career-leveraging in nature (e.g., Bruner, Munroe-Chandler, & Spink, 2008). Furthermore, a wide range of personal, professional, and familial issues away from elite football refereeing demanded MT. Not only does this further highlight life-orientated MT situations encountered by elite performers (Connaughton, Hanton, & Jones, 2010), but also an initial insight to those potentially faced by their significant others. With effective social support noted within the performance excellence research (Gould et al., 2002), this understanding marks an important area in future MT development.

Addressing MT from a conceptual perspective, the second purpose of the study was to align the behaviours and cognitions utilised by elite football referees in situations

requiring MT (see Figures 4.3 and 4.4). Leading up to competition, a host of behaviours were deployed in which referees adopted appropriate levels of team analysis, image management, and consistent preparation procedures towards every fixture. This finding confirms existing research when characterising mentally tough performers in football as being individuals who demonstrate a self-regulatory, detailed, and methodical pre-performance approach (e.g., Coulter et al., 2010; Thelwell et al., 2005). However, a key finding to emerge was the subtle MT behaviours displayed by referees that might go unnoticed during competition (e.g., make eye-contact with players, looking calm and composed, create on-field time for yourself). Of particular importance, in the case of player vs. player altercations, referees acted as a barrier between players that thwarted any physical conflict that might have occurred. Thus, referees anticipated these combative and physically threatening confrontations, with the potential outcome of physical injury in a pro-active and assertive manner. It appears then that this specific behaviour underpins an effective conflict management component of MT. Taken together, these MT behaviours are believed to be referee-specific to football, and thus, enhancing the understanding of the role-specific nature MT presents itself in sport. In accordance, and following Gucciardi et al.'s (2008) recommendations, characterising the opposite of MT behaviours throughout mentally tough situations will further conceptualise MT in elite football officiating.

Unique to the present study, elite football officials used cognitions such as "block-out crowd noise," "focus in blocks of 5 minutes," and "park-up/bin a decision," to effectively focus/refocus throughout competition. This finding might suggest a link between specific MT cognitions and attentional focus; a core component contained within several PST packages (e.g., Johnson & Gilbert, 2004; Thomas, Murphy, & Hardy, 1999). Indeed, existing research has consistently associated MT cognitions with specific psychological skill-based strategies (e.g., positive self-talk; Coulter et al., 2010).

Given the discontinuous nature of competitive football, understanding the time of competition (e.g., last 5 minutes of the first-half), the type of match-interval (e.g., penalty-kick), and the field location of foul-play (e.g., attacking-third), during mentally tough situations, might assist performers when using MT cognitions more effectively.

Referees that deployed MT cognitions also acknowledged having an awareness of not only their own emotions but the emotions of the players they officiate. In line with this, these individuals were able to accurately gauge players' emotional states during tough decision-making situations (e.g., a confrontational decision, not dwelling on a previous decision). This finding, therefore, seems to be particularly important in referees being able to identify and manage the "emotional temperature" of competitive football. These findings appear to overlap somewhat with the construct of Emotional Intelligence (EI; Meyer & Fletcher, 2007). With previous MT literature acknowledging various forms of EI characterising mentally tough performers (e.g., Gucciardi et al., 2008; Thelwell et al., 2005), further empirical research that extends upon the relationship between MT and EI is warranted. Finally, the acquisition and utilisation of certain MT cognitions stemmed from previous everyday life occurrences. As a result, raising children, going through a divorce process, and previous occupational experiences were all called upon during numerous competitive situations requiring MT. In part, this might be due to the fact that elite football referees continue to undertake their duties well into middle adulthood (e.g., Catteeuw, Helsen, Gilis, & Wagemans, 2009; Lane et al., 2006; Weston et al., 2010). Not only does this finding offer insight into life experiences that effectively transfer to MT situations in sport (e.g., mass-player confrontation), but emerging literature citing cases where MT might be utilised as a life skill (Connaughton et al., 2008; Gould, Griffes, & Carson, 2011). To this end, further research exploring life situations in relation to the development and transfer of MT in both sport and life skill domains are necessary.

The study protocol provided a sequential approach as to the association of previously generated MT attributes (Slack et al., 2013) with behaviours and cognitions deployed by EPL referees (see Figures 4.3 and 4.4). In doing so, this approach advances existing research (e.g., Gucciardi et al., 2008; Jones et al., 2007) by outlining the temporal and universal utilisation of MT components (i.e., attributes, behaviours, and cognitions) during competition-specific and off-field situations. Accordingly, this has provided an initial insight into the linkage between specific MT attributes (e.g., sport intelligence), behaviours (create on-field time for yourself), and cognitions (e.g., awareness of players' emotions) throughout particular situations whereby MT is required (e.g., during-match situations). This information further enhances the understanding of "when" and in what "form" specific MT components warrant the utmost consideration in the development of MT. To this end, the findings in their entirety provide a starting point when designing effective interventions aimed at developing MT in sport.

#### **4.5.1 Applied implications for sport psychology consultants**

While the development of MT in athletes has been outlined previously (e.g., Connaughton et al., 2010), the results of the present study build upon this literature. In line with this, findings illustrate situations requiring MT within a wider spectrum of elite sport competition, in which the development of MT might prove most effective (see Figure 4.5). Consequently, this presents sport psychology consultants operating within MT and its development with numerous applied implications. First, by identifying particular pre, during, and post-match situations to require MT (e.g., manager and captain introductions), this offers consultants the opportunity to observe MT behaviours throughout competition (e.g., looking calm and composed). As a result, this enables the potential to detect these behaviours when attempting to identify mentally tough performers. Second, awareness training of MT might inform effective psychological development programmes in sport. One notable awareness training strategy would be via

MENTAL TOUGHNESS					
Competition-Specific Situations			Off-Field Situations		
<b>Pre-Match</b>	<b><u>Behaviours</u></b>	Looking calm and composed (CP)  Appropriate level of team analysis (TA) Consistent preparation (TA) Explaining ground rules to teams (TA) Outline officials' expectations (TA) Image management (TA)	<b><u>Cognitions</u></b>	Awareness of own emotions (CP) Draw upon refereeing experiences (CP) Put the match into perspective (CP) Thrive on the atmosphere of a big crowd (CP)  Confidence in officials' ability (RSB) Confidence in own ability (RSB)  Focused on performance goals (TA)	
<b>During-Match</b>	<b><u>Behaviours</u></b>	Looking calm and composed (CP)  Work hard [18 yard] box-to-box (HWE)  Clear commands and signals (RSB) Make eye-contact with player/s (RSB) Strong body language (RSB)  Act as a barrier between players (SI) Create on-field time for yourself (SI)	<b><u>Cognitions</u></b>	Awareness of own emotions (CP) Block-out crowd noise (CP) Draw upon life experiences (CP) Draw upon refereeing experiences (CP)  Focus in blocks of five minutes (R) Focus on the next decision (R) Park-up/bin a decision (R)  Trust in decisions (RSB)  Awareness of players' emotions (SI) Tactical awareness (SI)	
<b>Post-Match</b>	<b><u>Behaviours</u></b>	Identify developmental areas (AS) Take on board constructive feedback (AS)  Do not read/listen to media (CP) Looking calm and composed (CP)  Clear commands and signals (RSB) Strong body language (RSB)	<b><u>Cognitions</u></b>	Draw upon refereeing experiences (CP) Put the match into perspective (CP)  Bank positives and move forward (R) Not taking criticism personally (R) Turn negatives into positives (R)	
<b>General Elite Refereeing</b>			<b><u>Behaviours</u></b>	Achieving refereeing-career goals (AS) Identify developmental areas (AS) Take on board constructive feedback (AS)  Maintaining high performance levels (CP)  Use all resources available (HWE) Working hard in training (HWE)  Re-address performance goals (R) Performing well in next match (R)  Effective time-management (TA) Image management (TA) Not rushing back from injury (TA)	
			<b><u>Cognitions</u></b>	Bank successful performances (AS) Maintaining a refereeing-career focus (AS)  Accept the demands of the job take time to adjust (CP)  Draw upon life experiences (CP) Draw upon refereeing experiences (CP) Put refereeing into perspective (CP)  Bank positives and move forward (R) Not taking criticism personally (R)  Confidence in own ability (RSB)  Focused on performance goals (TA)	
			<b>General-Life</b>	<b><u>Behaviours</u></b>	Discuss issues with family members (CP) Distance self from refereeing (CP)  Effective time-management (TA)
				<b><u>Cognitions</u></b>	Awareness of family concerns (CP) Not becoming obsessed with the job (CP) Pigeonhole personal issues (CP) Pigeonhole refereeing issues (CP) Put refereeing into perspective (CP)  Accept the sacrifices as part of the job (TA)

Figure 4.5 Applied Framework of Mental Toughness in Elite Football Officiating.

Legend: Mental Toughness Attributes: AS = Achievement Striving; CP = Coping with Pressure; HWE = High Work-Ethic; R = Resilience; RSB = Robust Self-Belief; SI = Sport Intelligence; TA = Tough Attitude.

the use of profiling techniques (e.g., Butler & Hardy, 1992) to evaluate MT attributes and behaviours during performance in the form of self- and coach-ratings. Furthermore, sport psychology consultants might assist in the development of MT via repeated, high-pressurised, and environmental-specific, training-ground procedures. In this refereeing context, by way of role-play for example, simulating competition-specific (e.g., mass-player confrontation, written press criticising performance) and off-field situations (e.g., physical training requirements) to demand MT might be one worthwhile procedure. Taken together, these procedures address recent calls by academics (e.g., Parkes & Mallett, 2011) regarding the content of what needs to be integrated into intervention programmes, to whom, and by whom, in the case of sport-specific MT development. However, questions still remain as to how best sport psychology consultants deliver these programmes, when to deliver these programmes, and the effectiveness of these programmes. Research is currently underway in an effort to address some of these pertinent questions.

When coupled with the 360-degree level of media scrutiny (e.g., negative comments from TV pundits) and the unparalleled enormity of the EPL environment (e.g., size of football stadia), entry to elite-level refereeing was a unique situation that demanded MT. With this in mind, it seems critical for referees to cope and function more effectively throughout this transitional period, and thus, would appear to be an appropriate juncture in which to develop MT. Therefore, sport psychology consultants might well play a significant role with regards to the development and implementation of MT behaviours (e.g., effective time-management, image management) and cognitive strategies (e.g., confidence in own ability, focused on performance goals) when devising a smooth transition for referees to the elite-level. Not reported in the current MT literature were various general-life situations away from elite sport that required MT, and in particular family welfare (e.g., family members being affected by media, spouse

getting ridiculed at work). Given this finding, incorporating some form of MT induction process and education not only for performers but also for their family members should be made available.

### **4.5.2 Limitations**

With gender and cultural differences prevalent throughout world football, the domain-specific (i.e., EPL football) nature of the elite officials investigated was a limitation of the study. Triangulating the results across other elite-level domains (e.g., Italian Serie A, US Women's National Soccer League; WNSL) would provide a greater understanding of MT components and their impact in the world's best football officials. Also, given that there are role-specific variations of MT within football, there are likely to be similar differences in other sport officiating domains. Therefore, a second limitation is the generalisability of the findings to elite referees operating in similar sporting codes whereby MT might also be important (e.g., NBA).

## **4.6 Conclusion**

The present study provides a comprehensive conceptualisation of MT in elite football officiating, becoming one of the few investigations within the MT literature to investigate sport performers outside of the athletes themselves. While results support existing literature (e.g., Coulter et al., 2010; Gucciardi et al., 2008), there were numerous findings perceived to be unique to elite football officiating. Accordingly, and in light of the role-specific situations to require MT in this context, a catalogue of original, multifunctional behaviours (e.g., act as a barrier between players, make eye-contact with player/s) and cognitions (e.g., tactical awareness, draw upon life experiences) extend the current literature. Finally, with current investigations adopting a sport-specific approach towards the development of MT (e.g., Gucciardi et al., 2009c; 2009d) these findings offer theoretical and applied implications in this area.



# CHAPTER V

## Pilot Study

### *Development and Preliminary Evaluation of a Mental Toughness Education and Training Programme (MTETP) for English Football Officiating*

#### 5.1 Introduction

Given recent advancements into the conceptualisation of MT within the sport psychology literature (e.g., Gucciardi et al., 2008; 2009b; Jones et al., 2007), interventions designed to develop MT are now emerging. This pilot study intends to build on this growing line of enquiry. To date, research on MT and its development, for the most part, has centred on the identification of factors that have facilitated MT in athletes (e.g., Bull et al., 2005; Butt et al., 2010; Thelwell, Such, Weston, Such, & Greenless, 2010). In particular, Connaughton et al. (2008) acknowledged that the development of MT is a long-term process that incorporates a host of factors including effective sporting and non-sporting support networks. Thus, studies have also examined the perspectives of various other key personnel such as parents (Coulter et al., 2010) in a bid to further understand the role of MT in sport. Notably, Connaughton et al. (2010) triangulated the views of world-class athletes, coaches, and sport psychologists regarding the process of developing MT. Throughout three developmental stages and a maintenance stage, findings revealed a number of factors and included reflective practice, rationalisation of successes in competition, and positive life incidents.

Within this line of enquiry, researchers have also begun to investigate solely the coach's perception in this area. In particular, Gucciardi, Gordon, Dimmock, and Mallett (2009) reported several factors perceived to positively affect the development of MT

(e.g., coach-athlete relationship) as well as negative factors as being detrimental (e.g., coach success). Further, Weinberg, Butt, and Culp (2011) when interviewing US NCAA college coaches, identified three central strategies aimed at developing MT in student-athletes and included tough physical training environment, positive mental environment, and providing awareness and learning opportunities. Echoing these findings somewhat, Driska, Kamphoff, and Armentrout (2012) highlighted numerous factors associated with effective coaching behaviours when developing mentally tough swimmers such as coach leadership, tough training environment, and mastery motivational climate. Collectively, this research has provided a detailed insight into key factors that assist MT development in the pursuit of athletic excellence.

Moving away from an elite athletic context, research has started to investigate MT development within other sport participants such as ultra-endurance runners (Crust et al., 2010) and elite youth-level football players (Crust, Nesti, & Littlewood, 2010a; 2010b). In particular, Slack et al. (2013) provided a starting point for understanding MT and its development in other active elite sport performers. Notably, Slack et al. (in press) built upon their initial findings when identifying 70 situations requiring MT in elite football officiating throughout five areas: pre-match situations, during-match situations, post-match situations, general elite refereeing situations, and general-life situations. In accordance, mentally tough behaviours (e.g., looking calm and composed) and cognitions (e.g., draw upon life experiences) deployed by elite football referees within these situations were also identified. As result, these findings enhanced this literature by further understanding the temporal nature of MT components (i.e., attributes, behaviours, and cognitions) and their development. Taken together, Slack et al.'s (2013; in press) findings provided a comprehensive conceptualisation of MT specific to elite English football officiating. Consequently, it is believed that sport psychology professionals (i.e., researchers and consultants) might be able to use this

research to supplement programmes that facilitate officiating excellence, and also enhance effective referee development. To this end, these findings provided the empirical underpinning of the present MT intervention.

Even though most of the MT research is qualitative in nature, one area of growing scrutiny has been that of the psychometric measurement of this construct. In line with this, although equivocal and not without recent debate amongst scholars (e.g., Clough, Earle, Perry, & Crust, 2012; Gucciardi, Hanton, & Mallett, 2012), evidence supports the construct validity of sport-general (e.g., Mental Toughness Questionnaire-48; MTQ-48; Clough, Earle, & Sewell, 2002; Perry, Clough, Earle, Crust, & Nicholls, 2013; Sport Mental Toughness Questionnaire; SMTQ; Sheard, Golby, & van Wersch, 2009), and sport-specific (e.g., Australian [Rules] football Mental Toughness Inventory; AfMTQ; Gucciardi, Gordon, & Dimmock, 2009a; Cricket Mental Toughness Inventory; CMTI; Gucciardi & Gordon, 2009) instruments measuring MT (e.g., Crust & Swann, 2011; Gucciardi et al., 2011). In accordance, although still in its infancy, literature has begun to examine the effectiveness of interventions designed to measure and develop MT in sport-general and sport-specific contexts.

Gucciardi et al. (2009c; 2009d) evaluated the effectiveness of a six week MT intervention specific to Australian rules football. The findings revealed that in accordance with a PST programme, a MT programme was equally as effective in enhancing levels of MT in youth-level athletes. Participants also discussed numerous factors regarding the successful outcomes of the intervention and included receptive to criticism, transfer of skills, and coach/parent education. From a coach perspective, Gordon and Gucciardi (2011) evaluated a strengths-based approach to MT in professional cricketers. The programme was psycho-educational and incorporated various strategies for coaches to effectively develop MT such as expect positive outcomes in the future, ability to use own emotions to achieve optimal outcomes, and an

awareness of the performance environment. Taken together, it is believed that following similar intervention designs in sport performers outside of an athletic context would further enhance this line of MT research.

As previously mentioned, however, although MT research in elite football officiating is now emerging (e.g., Slack et al., in press), there is scant literature examining the efficacy of MT interventions in this area. As such, there is no MT questionnaire specific to football refereeing. Therefore, the MTQ-48 (Clough et al., 2002) was seen as the most appropriate measurement to use for this pilot study. From a sport-general standpoint, the MTQ-48 (Clough et al., 2002) has been widely supported in recent sport psychology literature (Crust & Swann, 2011; Perry et al., 2013). Indeed, numerous studies have implemented this questionnaire when investigating MT in a range of sporting contexts (e.g., Crust, 2009; Crust & Azadi, 2009; 2010, Crust & Clough, 2005; Crust & Keegan, 2010; Kaiseler, Polman, & Nicholls, 2009; Levy, Nicholls, & Polman, 2012; Nicholls, Polman, Levy, & Backhouse, 2008; 2009).

Similar to that employed in existing literature (e.g., Callow Hardy, & Hall, 2001), the present study adopted an experimental design that compared across groups, and in this case, characterised as an experimental group/control group pre-test/post-test design (Cherulnik, 2001). The independent variable is the experimental condition of the MTETP group and control group between pre and post-intervention phases. The dependent variable is the six subscale scores from the MTQ-48. Post intervention, qualitative data was collected via an adapted version of a Social Validation Questionnaire (SVQ; Hrycaiko & Martin, 1996). As this study examines the development and preliminary evaluation of a MTETP, the intervention occurred over an eight week period. It is important to note, identifying the appropriate developmental stage of participants in accordance with the nature of MT interventions requires careful consideration (Crust & Clough, 2011; Gucciardi, 2009; Gucciardi et al., 2009c). Within

the TD pathway (e.g., Cote, Baker, & Abernethy, 2007) investment participants focus their attention on one activity and engage in a high amount of deliberate practice and a low amount of deliberate play. In essence, these participants are committed to achieving performance excellence in a single sport (Cote, 1999). Therefore, investment referees (i.e., level six English football County referees) were targeted because this developmental stage in sport is seen as a critical juncture in the development of MT (e.g., Connaughton et al., 2008; Gucciardi, 2010; 2011; Gucciardi & Jones, 2012).

## **5.2 Study Purpose**

The purpose of the intervention was to evaluate the efficacy of a MTETP for officials operating at level six of the English football refereeing pyramid. We hypothesise that the MTQ-48 mean average subscale scores of the MTQ-48 for referees in the MTETP group will be higher than the control group at the post-intervention phase.

## **5.3 Method**

### **5.3.1 Participants**

Six male level six English football County referees participated in the study. For participants to be classified as an investment referee, referees needed to have officiated a substantial amount of matches at this level and fall between the ages of 18-21. All referees were affiliated with the Sheffield and Hallamshire FA in the UK and had officiated an average of 16.63 matches at this level. Each referee was randomly assigned to either the MTETP or control group. Prior to the start of the intervention, institutional ethics measures and approval was obtained. In line with the purposive sampling undertaken (Patton, 2002), all referees were contacted by the Sheffield and Hallamshire FA and invited to participate in the study. In accordance, documents that outlined informed consent and participant requirements were sent to each referee (see Appendix G).

## **5.3.2 Experimental conditions and procedure**

### **5.3.2.1 MTETP group**

Referees in this group ( $N = 3$ ;  $M_{age} = 18.33$ ;  $SD = .58$ ) participated in workshops that targeted the situations requiring MT, and the MT components (i.e., attributes, behaviours, and cognitions) identified by Slack and colleagues (Slack et al., 2013; in press). Specifically, the MTETP group participated in five, two-hour workshops over an eight week period (May to June, 2012) prior to the start of the 2012-2013 English football season (see Appendix H). The first author was the primary lead on all five workshops. Therefore, all the workshops were audio recorded and examined by the first author to ensure a self-reflective process was undertaken. Table 5.1 outlines the timing, content, exercises, and purposes of the MTETP.

### **5.3.2.2 Control group**

Participants in this group ( $N = 3$ ;  $M_{age} = 18.67$ ;  $SD = .58$ ) did not receive the MTETP or contact from the team of researchers during the intervention period. Given the nature of the study, this non-active control group was informed of the experimental procedures undertaken post-intervention, and offered the opportunity to participate in a two-day intensive MTETP workshop.

## **5.3.3 Instrumentation**

### **5.3.3.1 Mental Toughness**

A self-report MT measure was administered to all participants at both pre-intervention (April, 2012) and post-intervention (July, 2012) phases of the study. The MTQ-48 (Clough et al., 2002) is designed to measure MT in a sport-general context (see Appendix J). The MTQ-48 is a 48-item measure that comprises six subscales: (a) challenge (e.g., challenges usually bring out the best in me), (b) commitment (e.g., I

Table 5.1 A summary of the Mental Toughness Education and Training Programme (MTETP).

Timing of the MTETP	Workshop Theme	Content and Exercises	Overall Purposes of the Workshop
English Football League season - Early pre-season (May)	1. Mental Toughness attributes in elite Football refereeing #1	I. Factors underpinning refereeing excellence  II. What is Mental Toughness? a. Own opinions of Mental Toughness b. Mental Toughness quotes  III. Mental Toughness attributes  IV. Achievement striving exercise a. Traffic-light activity b. Goal-setting activity  V. High work-ethic analysis. a. Group activity	I. To increase about eight factors underpinning performance excellence in refereeing.  II. To increase understanding of Mental Toughness  III. To increase awareness about seven Mental Toughness attributes underpinning performance excellence in refereeing.  IV. To increase awareness about the guidelines to potential referee success/excellence. To illustrate the importance of short-, intermediate-, long-term goals that one wants to achieve. Develop a "Road Map" of process, performance, and outcome goals.  V. To identify elements of football referees displaying a high work-ethic during matches.
	2. Mental Toughness attributes in elite Football refereeing #2	I. Resilience evaluation. a. Football referee's activity. b. Self-activity.  II. Robust self-belief exercise. a. What makes a confident football referee activity?  III. Tough attitude exercise. a. Quotes activity b. "Controlling the controllables" activity	I. To increase awareness about how other football referees and oneself have "bounced-back" and overcome adversity.  II. To identify successful refereeing decisions and performances that maintain confidence. Identify sources and types of factors that build and enhance self-confidence.  III. To recall and identify a number of quotes/statements underpinning a tough attitude and develop a list of controllable and uncontrollable football refereeing factors.
English Football League season - Early pre-season (May)			

Table 5.1 A summary of the Mental Toughness Education and Training Programme (MTETP; Continued).

Timing of the MTETP	Workshop Theme	Content and Exercises	Overall Purposes of the Workshop
English Football League season - Middle pre-season (May)	3. Mental Toughness attributes in elite Football refereeing #3	I. Coping with pressure exercise. a. coping strategies activity.  II. Sport Intelligence. a. What makes an intelligent referee activity? b. English Premier League referees' quotes  III. Ranking Mental Toughness attributes  IV. Applied Relaxation training a. Applied Relaxation introduction b. Progressive relaxation	I. To increase awareness about on and off-field situations where referees and oneself perceive pressurised situations. To increase awareness about one's own personal coping strategies and develop a list of adaptive coping strategies for football refereeing.  II. To increase awareness about the importance of sport intelligence in English Football League refereeing.  III. To increase awareness of the Mental Toughness attributes and compare and contrast rankings with English Premier League referees.  IV. To increase awareness about physical, emotional, and psychological signs of pressure. To illustrate the importance of attaining effective thoughts and feelings pre, during, and post-match. To gain experience in those actions techniques that enables this process.
	4. Situations requiring Mental Toughness: Awareness training #1	I. Situations requiring Mental Toughness in refereeing  II. During-match situations requiring Mental Toughness  III. Mental Toughness behaviours  IV. Player (s) reactions to a decision exercise a. Ranking of top three most important behaviours  V. Manager (s) reaction to a decision/ manager confrontation exercise a. "What-If" scenario exercise	I. To increase awareness about competition-specific and off-field situations requiring Mental Toughness in football refereeing.  II. To increase awareness about the eight during-match situations requiring Mental Toughness in football refereeing.  III. To increase awareness about the seven Mental Toughness behaviours needed throughout during-match situations requiring Mental Toughness.  IV. To increase awareness of the Mental Toughness type behaviours and compare and contrast rankings with English Premier League referees.  V. To increase awareness about manager situations demanding Mental Toughness. To increase awareness about situations demanding Mental Toughness that may arise during a match.
English Football League season - Middle pre-season (June)			



Table 5.1 A summary of the Mental Toughness Education and Training Programme (MTETP; Continued).

Timing of the MTETP	Workshop Theme	Content and Exercises	Overall Purposes of the Workshop
English Football League season - Late pre-season (June)	5. Situations requiring Mental Toughness: Awareness training #2	VI. Player vs. player altercation exercise a. Act as a barrier between players	VI. To identify the Mental Toughness type behaviours displayed when acting as a barrier between players. To increase awareness about acting as a barrier during a activity match.
		VII. Mass-player confrontation exercise a. Ranking of top three most important behaviours	VII. To increase awareness of the Mental Toughness type behaviours and compare and contrast rankings with English Premier League referees' results
		VIII. Applied Relaxation training a. Release-only relaxation b. Cue-controlled relaxation	VIII. To increase awareness about physical, emotional, and psychological signs of pressure. To illustrate the importance of attaining effective thoughts and feelings pre, during, and post-match. To gain experience in those actions techniques that enables this process.
		IX. Pre and post-match situations requiring Mental Toughness a. Pre-match "What-if" scenarios b. Post-match "What-if" scenarios	IX. To increase awareness about pre and post-match situations that require Mental Toughness and highlight effective coping strategies when dealing with such scenarios.
		I. Attentional focus exercise a. Effective concentration activity b. External distractions activity c. Internal distractions activity	I. To increase awareness about cues that one normally attends to and should be attending to during the decision-making process and performance. To increase about irrelevant external and internal distracting cues.
		II. "P.A.R.C" up decisions/performance exercise a. "P.A.R.C" up activity	II. To understand the process of P.A.R.C.
		III. Personal dialogue exercise a. Awareness of self-talk activity	III. To understand the content and nature of own self-talk.
		IV. Acknowledge self-talk exercise a. Acknowledge thoughts and emotions activity	IV. To increase awareness about the nature of own thoughts and emotions.

Table 5.1 A summary of the Mental Toughness Education and Training Programme (MTETP; *Continued*).

Timing of the MTETP	Workshop Theme	Content and Exercises	Overall Purposes of the Workshop
		<p>V. Rationalise situations, thoughts, and emotions exercise</p> <ol style="list-style-type: none"> <li>Think positive quote</li> <li>Courage in convictions quote</li> <li>Keep moving forward quote</li> <li>Thought stopping quote</li> <li>Put things into perspective quote</li> </ol>	<p>V. To increase awareness about how English Premier League referees (and as a person) rationalise refereeing situations, performance, decisions, and personal thoughts and feelings.</p>
		<p>VI. Focus and refocusing techniques exercise</p> <ol style="list-style-type: none"> <li>Thought stopping activity</li> <li>Stay in the left lane activity</li> <li>Walk the self-talk activity</li> <li>Walk the walk activity</li> </ol>	<p>VI. To increase awareness and develop on-field focus and refocus techniques by identifying effective visual, cognitive, and behavioural responses during competition.</p>
		<p>VII. Applied Relaxation training</p> <ol style="list-style-type: none"> <li>Rapid Relaxation</li> </ol>	<p>VII. To increase awareness about physical, emotional, and psychological signs of pressure. To illustrate the importance of attaining effective thoughts and feelings pre, during, and post-match. To gain experience in those actions techniques that enables this process.</p>

don't usually give up under pressure), (c) control of emotions (e.g., even when under considerable pressure I usually remain calm), (d) control of life (e.g., I generally feel that I am in control of what happens in my life), (e) confidence in own abilities (e.g., I am generally confident in my own abilities), and, (f) interpersonal confidence (e.g., I usually take charge of a situation when I feel it is appropriate). The items are rated on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

### **5.3.3.2 Social validation**

Sport psychology research has identified the value of social validation techniques when evaluating the practical importance of applied MT interventions and experimental outcomes (Gucciardi et al., 2009d). Thus, participants' subjective responses to the MTETP by way of an open-ended SVQ were gathered two months after the intervention (August, 2012). It is important to note, this information was gathered during the early stages of the 2012-2013 English football season. It is anticipated that this approach and its timing will provide additional findings to that of the quantitative data, thus, strengthening the evaluation of the intervention's effectiveness. Following the recommendations of Martin, Thompson, and Regehr (2004), the open-ended SVQ was structured into four key sections: (a) thoughts about the aims of the MTETP, (b) the structure and procedures that were applied throughout the MTETP, (c) how the MTETP and the workshops have affected the on-field performance of each referee, and, (d) the potential development areas of the MTETP and the workshops within.

### **5.3.4 Data analysis**

The aim of the present study was to examine changes in MT among the MTETP group and control group across pre and post-intervention time points. All quantitative data analyses were conducted using Statistical Package for Social Sciences (SPSS) version 19.0. Descriptive statistics (i.e., means and standard deviations) were calculated

for all MTQ-48 subscales. In addition, Cronbach's alpha ( $\alpha$ ) values were reported to test for internal consistency reliability on all subscales at two separate time-points (i.e., pre-intervention and post-intervention) for both the MTETP group and control group (see Table 5.2). Finally, social validation procedures were undertaken and completed individually in a setting most convenient to each participant. A total of 26 independent statements were extracted from the text of the SVQs. Minor alterations to the text were made by the first author to benefit the flow of the SVQ data. Each statement was then inductively content analysed (Patton, 2002) by the team of researchers. Meetings were held with the team until all themes were established and consensus had been upheld on all statements (Lincoln & Guba, 1985).

## **5.4 Results**

### **5.4.1 Mental Toughness**

Descriptive statistics and Cronbach's alpha values for the six subscales scores and total MT of the MTQ-48 for the MTETP group and control group pre and post-intervention are illustrated in Table 5.2. The mean average scores of the MTETP group were higher throughout all six subscales and total MT scores of the MTQ-48 at the post-intervention phase than the control group. In addition, when inspecting the mean difference scores across pre and post-intervention measures, the MTETP group reported more positive changes than the control group (see Figures 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, and 5.7). Results of the Cronbach's alpha values showed acceptable reliability ( $\alpha = .60>$ ) as acknowledged by Hair, Black, Babin, Anderson, and Tatham (2006) except for the MTETP Group pre-intervention control of emotions ( $\alpha = .57$ ) and interpersonal confidence ( $\alpha = .51$ ) subscale values (see Appendix K).

### **5.4.2 Social validation**

The present study attempted to build upon the aforementioned quantitative data outlined by gaining the subjective accounts of the MTETP group. In total, the three

Table 5.2 Means (*SD*) and Cronbach's alpha ( $\alpha$ ) values for the six subscales of the MTQ-48 for the MTETP group and control group pre and post-intervention.

Experimental Condition	Pre-Intervention			Post-Intervention			Difference Score	
	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>
<i>MTETP Group</i>								
Challenge	3.34	1.00	(.94)	4.5	.33	(.73)	+1.16	.29
Commitment	3.79	.54	(.72)	4.48	.44	(.82)	+.69	.37
Control of Emotions	3.1	.58	(.57)	4.1	.59	(.63)	+1	.75
Control of Life	3.14	.65	(.61)	4.38	.46	(.64)	+1.24	.25
Confidence in Own Ability	3.19	.56	(.61)	3.94	.42	(.70)	+.75	.18
Interpersonal Confidence	3.61	.70	(.51)	4.44	.51	(.69)	+.83	.26
Total Mental Toughness	3.37	.60	(.95)	4.32	.40	(.94)	+.95	.16
<i>Control Group</i>								
Challenge	3.92	.31	(.66)	4	.25	(.71)	+.08	.07
Commitment	3.82	.21	(.75)	3.6	.45	(.62)	-.22	.23
Control of Emotions	3.76	.51	(.73)	3.71	.38	(.67)	-.05	.33
Control of Life	3.71	.65	(.87)	3.38	.43	(.67)	-.33	.21
Confidence in Own Ability	3.71	.56	(.89)	3.44	.42	(.87)	-.27	.26
Interpersonal Confidence	4.06	.70	(.89)	4.33	.33	(.70)	+.27	.67
Total Mental Toughness	3.82	.49	(.96)	3.71	.32	(.94)	-.11	.26

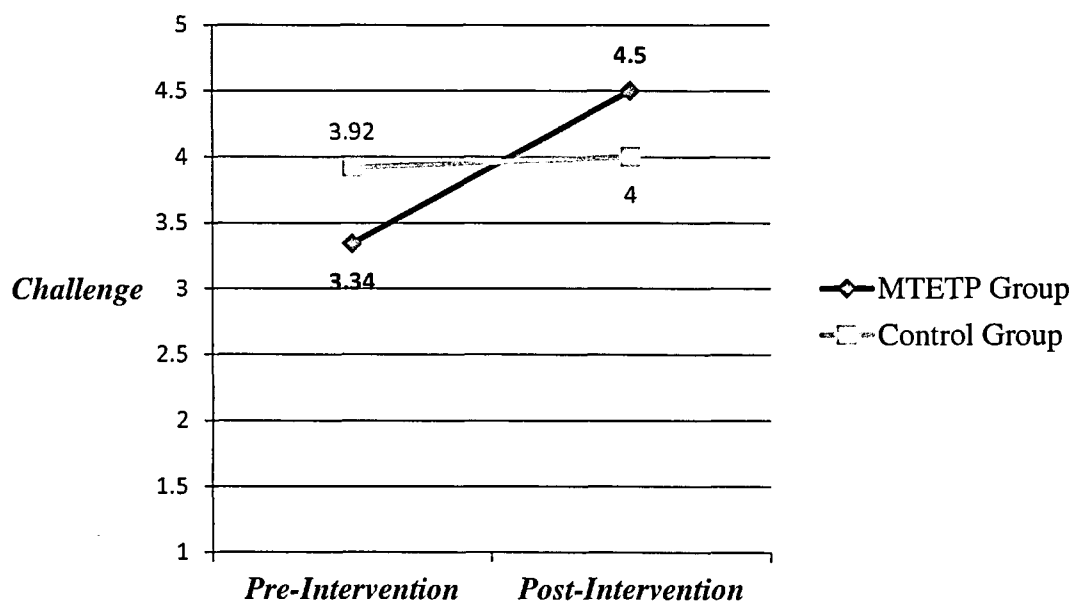


Figure 5.1 Mean average scores for Challenge subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group.

MTETP group referees provided 10 pages of type-written responses to the MTETP by way of an open-ended SVQ (see Appendix I). In doing so, this has strengthened the evaluation of the intervention's effectiveness. In general, the findings highlight various applied implications regarding the development of MT in English football officiating and the construction of more effective MT programmes in sport. These findings are illustrated below within the four key sections of the SVQ. In addition, findings were discussed in conjunction with the statements taken from the open-ended SVQs and labelled with a referee ID number (i.e., Referee 1 = R1; Referee 2 = R2; and Referee 3 = R3).

### **5.4.2.1 Aims of the MTETP**

#### **5.4.2.1.1 Mental Toughness education**

Referees highlighted that obtaining a more in-depth insight regarding the nature of MT had a significant benefit. There was a general consensus that the education material that was presented to them throughout all five workshops enhanced their outlook on MT in football refereeing. For example, one extract illustrates the effectiveness of how one referee was educated on how to “bounce-back” during performance:

I didn't really understand Mental Toughness before, but the workshops educated me with great detail into Mental Toughness. This has helped me because now instead of just doing and thinking certain things, I now know what to do with my thoughts to improve performance... And one of the biggest ones for me, was if you do make a mistake during a match, instead of lingering on it, it is to bounce-back straight away. (R2)

#### **5.4.2.1.2 Being mentally tough on and off-field**

In addition, understanding that MT does not only play a vital role during competition, but also in certain circumstances off-the-field was deemed significant:

This programme focused on different aspects of your on and off-field performance, looking at your behaviours, your mind, and the mental aspects rather than physical positioning and things like that. So this programme was important to improve my on and off-field performance in terms of Mental Toughness and focus. It was important to improve areas in which I can't really practice usually, to ensure that I was getting the best out of my ability as a referee. (R1)

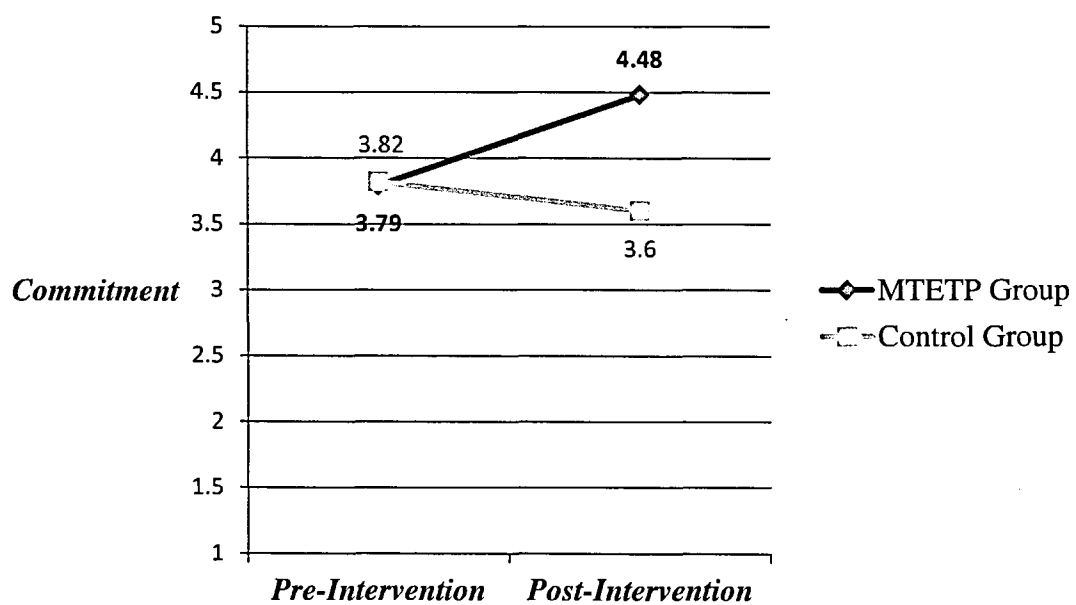


Figure 5.2 Mean average scores for Commitment subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group.



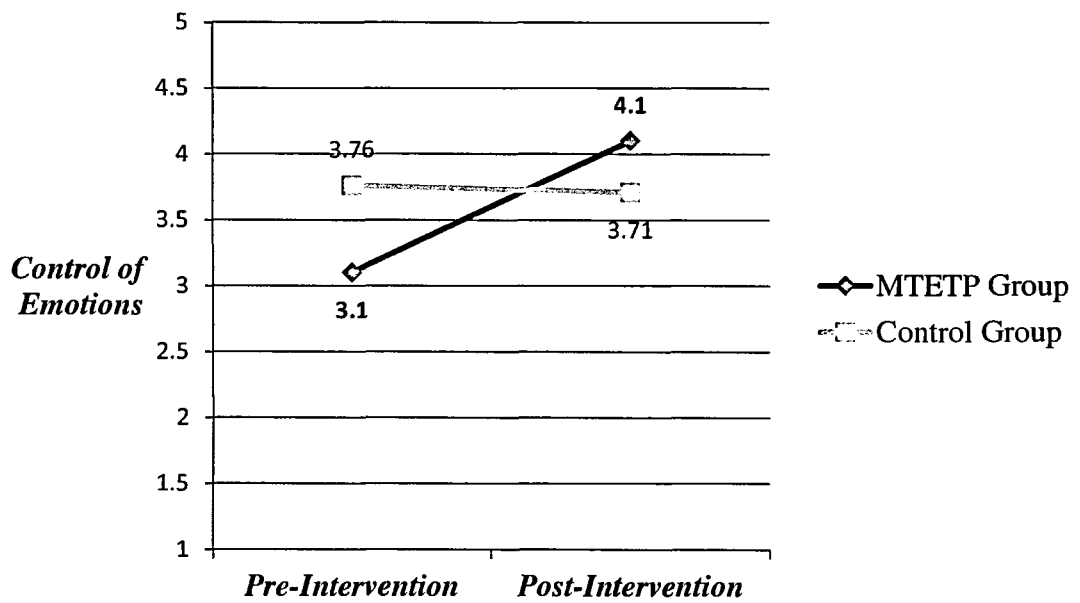


Figure 5.3 Mean average scores for Control of Emotions subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group.

## **5.4.2.2 Structure and procedures of the MTETP**

### **5.4.2.2.1 Interactive small-group workshops**

Referees also noted that the format of the MTETP group which involved a cohort of referees of a similar age and refereeing background encouraged a more effective learning environment. One referee acknowledged how the nature of the atmosphere within the workshops allowed for vibrant open discussions:

The workshops were very laid back and friendly, this made it more effective as I could relax and learn more. I think the venue and participant choice was spot on, and due to this the conversations we had were more educational. It was really good with the group we had because the other two referees were the same age and level, so the atmosphere was so relaxed, it was informal in a good way because we bounced off each other. I could say things that I thought rather than sitting back and letting somebody else take over, so I learnt more that way. (R2)

### **5.4.2.2.2 Pre-season workshops**

Not only was the format of the MTETP highlighted, but also the timing of the workshops which ran throughout the pre-season phase of the English Football League calendar. This particular participant provided feedback of the benefits this had when mentally preparing for the forthcoming football season:

It was good that we did the programme in pre-season because I've started this season well and taken many aspects of the programme into my games. So it got me mentally ready for the start of the season and we are all fighting for that end of season goal which is to get promoted so to have these workshops beforehand has really motivated me to stay focused on my refereeing and really give it a good go. (R1)

### **5.4.2.2.3 “Road-map” goal-setting**

The procedures and activities from the first workshop were deemed to have a significant impact when developing MT in investment referees. Notably, the activity perceived to have the most influence was the multidimensional goal-setting activity, for example:

Goal-setting was a key aspect of the first workshop for me when improving my Mental Toughness. This was the main thing I took from the session and it has helped me to set realistic targets, in terms of the short, medium, and

long-term goals as well as the process and performance goals. So since we did the goal-setting back in May I have since adapted these goals. It's developed my confidence massively, because if you don't know what you're achieving or what you want to achieve you cannot take that into your games. So when I achieve my targets I take that into my games and now my goals change when I achieve those. (R1)

#### **5.4.2.2.4 Mental Toughness profiling**

In subsequent workshops several other activities that comprised both individual and group tasks were found to have a major effect on performance. Of particular interest, one individual task that was noted in detail was the MT attributes profiling undertaken throughout the course of the MTETP:

When we came to the Mental Toughness profiling again in a later workshop I found that I really improved on several of the attributes and other attributes that still needed work. So working on these attributes throughout the course of the programme has helped my performance a great deal. (R1)

#### **5.4.2.2.5 “What-if” scenario planning**

Furthermore, the group-based “what-if” scenario exercise was noted by all three referees as being essential in understanding the types of situations that referees may find themselves in during their career. Specifically, these scenarios captured situations both on and off-the-field and provided the opportunity for referees to discuss as a group the actions they would take. The proceeding extract provides a detailed indication of the positive effect this particular activity had on the MTETP group:

Doing the ‘what-if’s’ in a game, what could go wrong, sending’s off, mass confrontations, yellow cards, even little things like goal kicks has helped me a great deal. For example, I cautioned a player the other day, whereas before I’d been like I don’t want to talk to you, whereas now, I walked up to him, told him to relax and that there’s no point getting upset, you’re going to be given a yellow card no matter what. So now I do it in a comfortable way, rather than rushing it and looking flustered. So coming back to scenarios we did, knowing that I’ve discussed and planned them before, and bringing them into my game has helped. (R2)

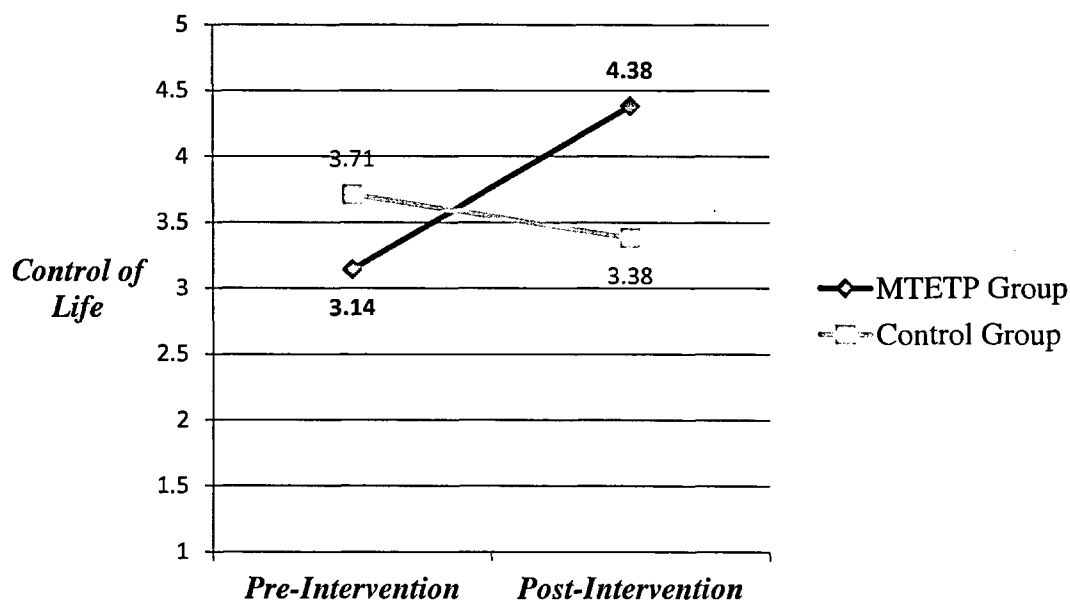


Figure 5.4 Mean average scores for Control of Life subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group.

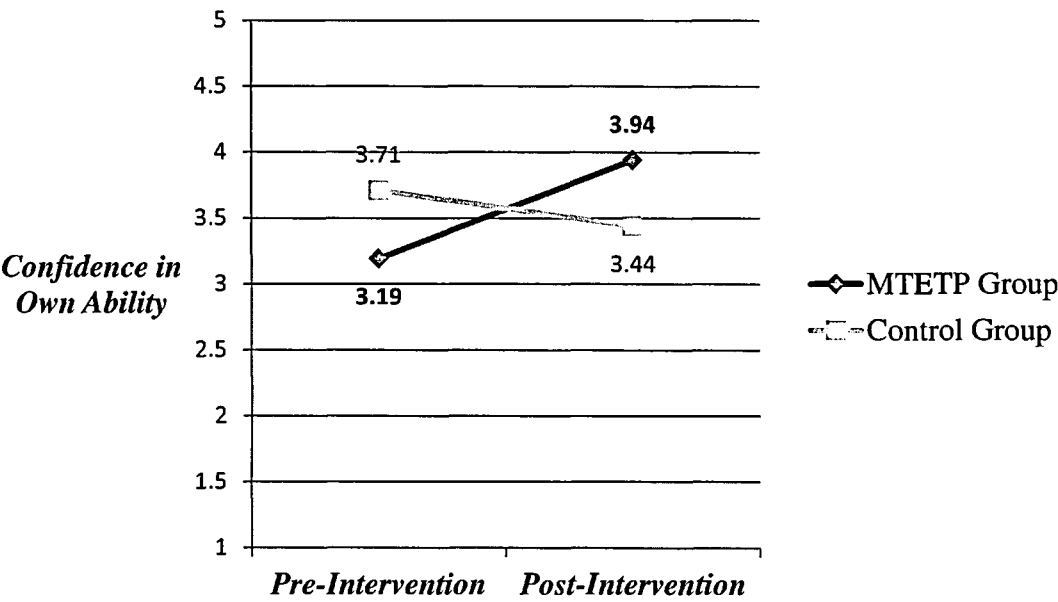


Figure 5.5 Mean average scores for Confidence in Own Ability subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group.

#### **5.4.2.2.6 Enhancing positive self-talk**

The final workshop within the MTETP was specifically designed to target cognitive aspects related to MT in greater detail. Therefore, numerous statements suggested that being educated on the content and positive nature of their self-talk now transferred into their performances, for example:

I'll be talking to myself now if I feel myself switching off. My self-talk is to grip my whistle and stick my chest out and that would be my way of focusing. Rather than looking at things in a negative situation way, I turn things around to look at the positive side now. I try and look at the positive aspects rather than dwelling on the negative side which could affect my on-field performance. I say "I know I can do it, I'm capable, I just made a mistake, it's just a mistake and everyone makes them," rather than thinking I've made a mistake right in front of the dugouts, and their all thinking I'm crap. (R1)

#### **5.4.2.2.7 Focus and refocus techniques**

In line with Slack et al.'s (in press) findings, all three referee illustrated that the focus and refocus techniques adopted by EPL referees had developed and enhanced their MT. One investment referee noted how he is now able to rationalise poor refereeing decisions and take the positives from that particular match:

I can come off a very bad game and I'm now able to park that incident in my mind and continue with the next game. So before those workshops I would just be going over and over decisions but now I'm able to think of the good games since then and now able to park them up. It would've taken me longer to forget about those decisions and those games, but now I think about areas of improvement and areas of development. (R3)

#### **5.4.2.3 The MTETP and its impact on performance**

Of notable importance, one of the major benefits of having participated in the MTETP was the perceived effects it had on the on-field performance of all three referees. In particular, becoming mentally tougher towards the training requirements of refereeing as well as their individual pre-match preparation approach was acknowledged.

#### **5.4.2.3.1 Increased work-ethic towards training schedule**

Central to these training requirements, referees noted that the MTETP workshops had stimulated their motivation and commitment to refereeing. For one referee this resulted in pushing through the physical and mental pain barrier when undergoing more training sessions during a week:

I never thought I'd be able to train three times a week because I've got a pretty busy lifestyle and stuff, but this Mental Toughness programme helped me a lot. It helped me to push myself mentally to get through training whilst I was mentally exhausted. (R3)

#### **5.4.2.3.2 Working physically harder and longer in training**

In addition, another referee noted that he now finds himself assigning more time and expanding more physical effort throughout training sessions as a consequence of participating in the MTETP:

I've been going down to the running track before my games now and I trained before games, for my fitness test, and I run extra laps and do some sprints. So I try and better my times. So when it comes to it, I'll have done loads more than I need to. So I work harder in training now, and I might ache a day or two after at work, but it goes back to that high work-ethic and relating that back to being mentally tough. (R2)

#### **5.4.2.3.3 Undertaking a professional pre-match approach**

There was a common agreement that a heightened level of quality pre-match preparation had a considerable impact on all three referees with the MTETP group. One individual acknowledged at great length about the consistent routine he now employs 48 hours before kick-off:

The work we did about pre-match routine made me feel more relaxed, that everything was under control, and I knew what I needed to do. It improved my self-discipline and how I was managing to look after myself, like going to sleep at an early time the night before the game, don't drink, and eat the right things before the game things like that. I've started packing my kit the night before a game, replying to people's emails, and projecting myself as a referee in a real positive manner and how I come across as a person. (R1)

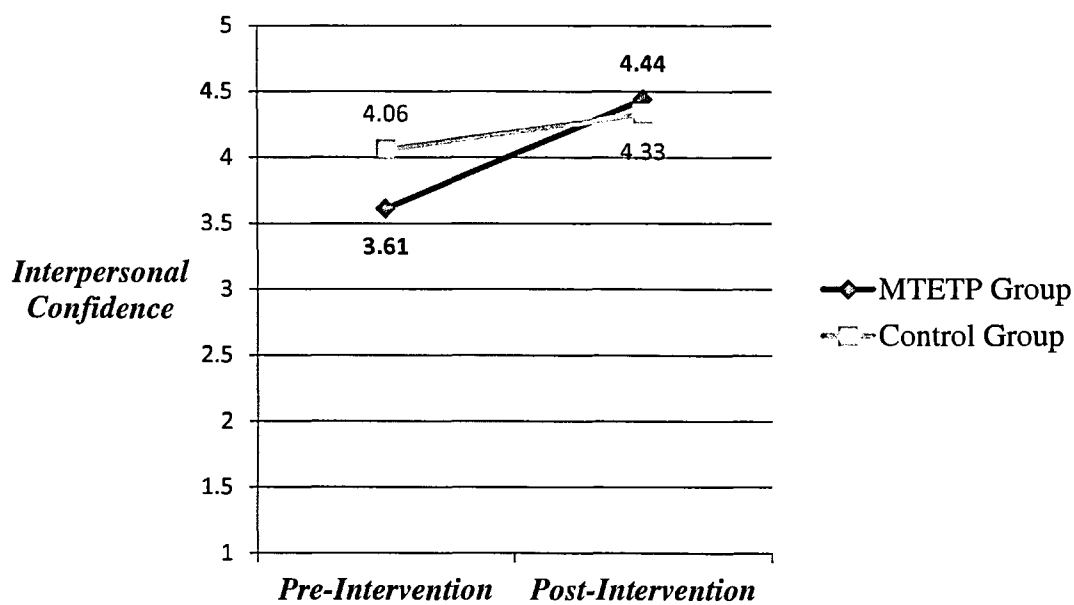


Figure 5.6 Mean average scores for Interpersonal Confidence subscale of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group.



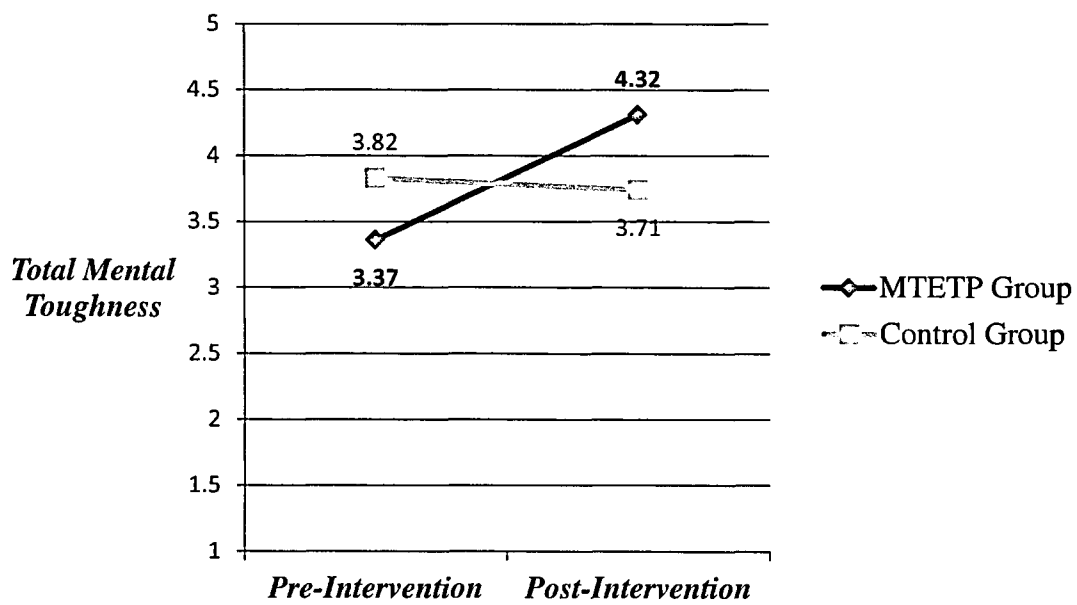


Figure 5.7 Mean average scores for Total Mental Toughness of the MTQ-48 across pre and post-intervention phases for the MTETP group and control group.

#### **5.4.2.3.4 Transitioning well to level five refereeing**

The MTETP was perceived to have had a notable effect on two of the three English football referees who had since been promoted up a level to level 5 (senior county referees) at the time of the SVQ being implemented. As a consequence of this promotion both referees adjudged that the MTETP had assisted them in performing well throughout this transition to a higher level of refereeing. For example:

When I got promoted to level five [of the English football refereeing pyramid], that started a new set of challenges for me. The programme really helped me adjust to that transition because there are a lot of young referees who are very competitive and willing to learn. Setting my goals before the start of the season really helped me with the transition and focus on my performance and what I wanted to achieve this season with my assessor marks and club marks. (R1)

#### **5.4.2.3.5 Enhanced self-confidence towards refereeing**

Becoming more self-confident as a football referee was one fundamental processes on the MTETP. As a result, referees noted that throughout the eight week programme and two months after, they all perceive themselves to be more confident in their abilities when undertaking their role-specific duties in football. In part, a referee highlights this enhanced level of confidence in the following extract:

Any game could put you off refereeing, but knowing what I know now, I've got that self-belief and that confidence to think right "knock it on its head", and bounce-back straight away. So developing that tough attitude has made me more confident now than I was, I'm not thinking all the time I'm just doing it. I'm more confident now and that comes with being relaxed, if you're more relaxed you're more confident. (R2)

#### **5.4.2.3.6 Coping with higher-profile football matches**

Coping with various pressures and specifically in this case higher-profile matches were seen to have benefitted referees taking part in the MTETP. One referee illustrates the nature of a forthcoming fixture he has been appointed to, and how he now copes effectively with those pressures at that particular level of competition:

I've been appointed to a top game in three weeks' time and it just becomes a bigger game, there will be more fans and police at the game and both managers have been talking about the game already. So the programme has helped me cope with all these pressures that you're not aware of given that the football at this level now becomes more serious with the players getting paid and stuff. (R1)

#### **5.4.2.3.7 Doing homework on football teams**

Providing greater awareness of the concept of sport intelligence was another fundamental procedure within the MTETP. In line with this procedure, referees provided several statements centred on how they dedicate time to understanding the football teams they officiate. For example, one participant notes how he now discusses this understanding of teams with other referees at that level:

I have a look at the teams I am refereeing and understanding what the game may be like given those two teams. So I started doing a bit of homework on the teams before matches by checking the league tables and results of the teams, and talking to other referees. So it's not just understanding what Mental Toughness is on the pitch, it's off it as well that matters and it makes you realise what you have to do to be a mentally tough referee. (R1)

#### **5.4.2.3.8 Self-awareness of the emotional temperature of matches**

In addition, not only understanding the teams, but also the players enabled referees to enhance their levels of sport intelligence. As depicted in the extract below, developing their self-awareness of players' emotions during competition has enhanced their levels of refereeing performance:

I had to caution a player to kill the game and calm it down, so I had to talk to him as long as I could. There were five minutes left and they'd just equalised in the cup final, so everyone wanted to win the game. So I had to cool the game down, I had to stay calm, take my time, and talk to this player for one or two minutes and kill the game. Obviously, that brought it back to the session we did on refereeing intelligence. (R2)

#### **5.4.2.3.9 Remaining calm and composed during performance**

The ability to stay calm and composed was a reoccurring theme throughout all five workshops within the MTETP. This theme highlighted specific situations requiring the need to stay calm and composed, as well as the specific behaviours and cognitions

to do so. One referee provided an account of how he now remains calm and composed during competition, in comparison to the effect his nerves had on performances prior to undertaking the MTETP:

I believe the programme has helped me dramatically as a referee. My performance has improved because now I've put the nerves and anxiety down to positive 'ready energy' so to speak. I'm a lot calmer in games now. Whereas before if I was nervous and thinking of my nerves in a bad way I wasn't concentrating on the game. I wasn't stood with my shoulders back, my chest out; I was running round feeling physically sick. (R2)

#### **5.4.2.3.10 Conveying stronger body language**

Workshop four outlined various mentally tough behaviours associated with football refereeing. In doing so, the educational material offered within the MTETP highlighted the mechanics involved when attaining positive and strong body language on-the-field of play. These mechanical components and their impact was fully outlined in the statement provided:

After the sessions I think about my body language a lot more, I think about how I'm standing, instead of just standing and talking to them, I think about taking a step back if the player is taller or step closer if the player is smaller, just so I'm not intimidating or being intimidated. (R2)

#### **5.4.2.3.11 Dealing with player confrontation effectively**

One specific situation requiring MT that was discussed at length within workshop four of the MTETP was player/s reaction to decisions. As a result, one referee provided a personal example how he has since developed his MT in being able to deal with this particular mentally tough situation during competition:

I've had a lot of bigger games this season and I've coped with them well, with the sort of well-known players in the area or the nasty players and them shouting at me and things like that. I can cope with it now after the sessions, rather than getting worried about it and taking offence to things. I really feel I can cope with that pressure now. (R1)

#### **5.4.2.3.12 Parking-up mistakes during a match**

One fundamental process within the MTETP was the "P.A.R.C. up" activity outlined in workshop five. Of significant interest was the information pertaining to

rationalising certain areas of a referee's performance. One area of importance was the ability not to be overly critical of one's self during competition when making mistakes and accepting that throughout the course of a season you will make several decision-making errors. This self-awareness was fully portrayed by one referee that participated as a MTETP group member:

It's helped me to understand that everyone makes mistakes and it's just putting those mistakes behind you during a game, focusing on the rest of the game, and clearing your mind because you can get caught up in making more mistakes. So it's helped me to break up the game into five minute and 10 minute periods. So if anything happens during that time you I can park it up put it behind me and start on the next five or 10 minutes. (R1)

#### **5.4.2.3.13 Not switching-off when making good decisions**

Finally, and in contrast to having the ability to rationalise poor decisions, one referee also noted how he rationalises good decision-making during competition. In particular, when not dwelling of good decisions, this referee details the specific focusing techniques he now adopts in an effort not to switch-off from his high-level performance:

It's not just dwelling on bad decisions, it's when you make good decisions and people are saying he's a good referee and I've had a good 10 minutes there. It's not saying to yourself 'I can walk through this game now' and falling into that comfort zone. So when it's going really well it's not dwelling on those good decisions and making sure you're focused for the next 10 minute period and the entire game from first to last minute. I think what the programme has helped me do is when I give a tough decision I put that to the back of my mind, concentrate on what's in front of me, not lose that focus, and have that ability not to switch-off. (R1)

#### **5.4.2.4 Future development of the MTETP**

##### **5.4.2.4.1 Individual MTETP sessions**

Additional insight was also provided into how the MTETP could be further developed and enhanced in an effort to provide more effective MT interventions. Specifically, four factors in the future development of the MTETP appeared most prominent within the referees' responses from the SVQs. The first factor was the format of the MTETP workshops. Although this programme adopted a relatively small number

of group-based workshops, two out of the three referees suggested that having additional one-to-one, individual-based workshops would also facilitate their pursuit of developing MT during performance. For example:

I think the sessions should be personalised and one-to-one because when we talk about my own refereeing its personal to me as referee, so individual sessions would be better for me. I think workshops should be both group and individual and it just depends on the nature of that workshop. So individual workshop for me would be to look at how I communicate with my team of officials and looking at clips of my body language during the game. So I would like to watch clips from referees a couple of leagues higher, clips from my league, and my own footage. (R3)

#### **5.4.2.4.2 Timing of MTETP during the football season**

The timing of the MTETP was perceived to have positive effects on the development of MT. However, referees also stipulated that they would've liked the MTETP continue throughout the course of the entire forthcoming season. Referees suggested that having a mix of both individual and group-based sessions structured at various junctures of the season would be more beneficial. In particular, this would then allow them to discuss the most prominent issues relating to MT during their performance in a timely fashion. This was fully outlined by one referee in the following extract:

I'd like the programme to be a bit longer and particularly throughout the whole of the football season. Maybe we could have had some one-to-one sessions to discuss certain issues around Mental Toughness and then at the end of the month for instance, all come together and have a group session or meeting. So maybe have three or four group meetings throughout the season, one in pre-season, one during the season and one post-season and have individual meetings throughout that time. (R1)

#### **5.4.2.4.3 Video analysis of refereeing performance**

In addition to the format and temporal structure of the MTETP, referees also reported that they would have also benefitted from video analysis activities within all five workshops. Specifically, when undertaking such activities, gaining footage of recent

performances, outlining specific situations requiring MT, as well as identifying the MT behaviours or lack of, would assist in the development of MT:

I think that if players get filmed so should the referees, they do at the highest level and they have learnt a lot by doing this. I think filming at my level is where you really need it, I'd love to video my games and then watch them afterwards and analyse them. So if we could watch our own games and footage and look at my Mental Toughness that would help me a lot I think.  
(R1)

#### **5.4.2.4.4 Observing and talking to elite-level football referees**

Finally, referees also addressed more practical issues in a bid to develop MT. Central to these applied strategies was for referees to observe professional referees not only via visual footage but live at competitive matches. For example, one extract illustrates the effectiveness of this strategy in the pursuit of developing MT in English football refereeing:

I try to watch as much football as I can so I think it's not only watching your own clips or watching the footage of referees at my level, it's watching or talking to how [English] Premier League referees deal with certain mentally tough situations as well. I'd also benefit going to watch top-level referees and the matches they undertake to get a feel for the game and types of situations actually being there in the stadium. (R1)

### **5.5 Discussion**

The aim of the present study was to develop and preliminary evaluate the efficacy of MTETP for English football referees. Overall, the quantitative and social validation data provide support for the effectiveness of the MTETP. From a quantitative standpoint, mean average scores of the MTETP group were higher throughout all six subscales and total MT scores of the MTQ-48 at the post-intervention phase than the control group. When inspecting the mean difference scores across pre- and post-intervention measures, the MTETP group reported positive changes in all MTQ-48 subscales. The MTQ-48 subscales with the greatest positive change within the MTETP group were challenge (+1.16), control of life (+1.24), and interpersonal confidence (+.83). In contrast, the control group reported marginal positive changes in challenge

(+.08) and interpersonal confidence (+.27). Notably, when the findings were considered with respect to the MTQ-48 subscale of control of life, recent MT literature has highlighted the importance of being mentally tough within a life context (e.g., Gucciardi et al., 2008; Jones et al., 2007; Slack et al., in press). Therefore, it is apparent that findings lend support for the effectiveness of the intervention in enhancing MT within a referee-specific and life domain.

In comparison, the moderate change in the MTQ-48 subscale scores of commitment, control of emotions, and confidence in own ability of the MTETP group, might be due to the timing of the intervention. Given that the MTETP was conducted during pre-season, the strategies and procedures designed to develop emotional control, for example, might be more effective throughout the regular competitive season. In doing so and following Slack et al.'s (2013; in press) recommendations, on and off-field pressure-based exposure might well be a useful addition to the current MTETP (e.g., media-related performance scrutiny, extensive coach evaluation on decisions). In addition, one reason for only a moderate change in the MTQ-48 subscale of commitment might be due to the fact that level six County referees officiate at a novice level of English football (i.e., level nine of the English football league system). As such, further interventions of this nature should look to examine football referees who officiate at semi-professional and professional levels of English football (i.e., levels one to six of the English football league system). Therefore, given the unique English football officiating pathway, the MTETP might be best suited to officials operating at level one (i.e., national list), level two (i.e., panel list), and level three (i.e., contributory list) of the English football refereeing pyramid.

Throughout the course of the eight week intervention the social validation data also provided additional support for the efficacy of the MTETP. Indeed, not only were several positive factors perceived to enhance MT, but also levels of performance at the



post-intervention phase. Supporting previous MT literature (e.g., Coulter et al., 2010; Crust & Azadi, 2010; Mattie & Munroe-Chandler, 2012), the impact of the PST in developing and enhancing MT were perceived to have positive psychological benefits. In addition, a host of factors related to the MTETP's impact on refereeing performance are deemed to be unique to the current MT literature. Most notably, aiding a smooth and positive transition to a higher level of English football officiating (i.e., level five Senior County referees), increasing self-awareness and preparatory activities prior to forthcoming league-based competition, as well as dealing with specific on-field decision-making situations requiring MT (e.g., parking-up mistakes during a match, not switching-off when making good decisions) more effectively are believed to be key findings.

### **5.5.1 Applied implications for Mental Toughness consultants**

The findings of this pilot study provide consultants working within the area of MT and its development with a series of implications for applied practice. First, when devising MT programmes in elite sport, the scheduling of such programmes should operate throughout all phases of the sporting calendar (i.e., pre-season, season, post-season, and off-season). This coincides with previous research suggesting that the development of MT is a long-term process (Dress & Mack, 2012; Gucciardi et al., 2009c; 2009d; Connaughton et al., 2008). It is believed that by doing so, this provides performers with greater opportunities to become competent in developing MT components (i.e., attributes, behaviours, and cognitions), and more familiar with the strategies within such programmes at various junctures of competition. For example, the implementation of “road-map” goal-setting (Vidic & Burton, 2010), applied relaxation techniques, and “what-if” scenario strategies should look to take place during the pre-season phase of competition. Throughout the competition phase, MT profiling of attributes and behaviours, focus and refocus techniques, and video analysis of

performance should all be applied at this particular juncture of the season. Building upon the social validation data of the present study, future MTETP interventions should consist of both one-to-one and group-based workshops that are interactive and multi-sensory in nature. In line with this, sport psychology research has recently advocated the use of video, audio, and web-based workshops when developing and enhancing psychological skills in athletes (Murphy, 2009).

### **5.5.2 Limitations and future research**

Limitations of the present study include various theoretical and applied implications for future research when designing effective MT interventions in sport. First, it is evident that given the low sample size of participants, the meaningfulness of results should be viewed with caution. In line with this, idiographic research might be best suited to this sporting domain when implementing future MTETP interventions (e.g., single-subject design). From a theoretical perspective, although MT improvements occurred throughout the quantitative inspections, further investigating MT development across multi-source reports are encouraged (e.g., parent, coach, mentor, sport psychologist, peer-ratings). This multi-source report procedure is believed to have strengthened the reliability of current MT interventions (e.g., Crust et al., 2010b; Gucciardi et al., 2009c) by alleviating some of the concerns associated with self-report data (e.g., social desirability).

In addition, a further limitation was that the study examined the effectiveness of developing MT alone via a short-term intervention. Thus, evaluating MT in conjunction with performance-related outcomes over an extended period, might, in turn, provide further conceptual understanding of MT development. Indeed, support for applied interventions intended to enhance factors associated with athletic excellence as well as improve performance are evident (e.g., Rees, Hardy, & Freeman, 2007). Given this, and following Gucciardi et al.'s (2009d) recommendations, additional referee-specific

research evaluating the effectiveness of interventions surrounding MT and performance is warranted. In the context of English football refereeing, therefore, additional research should obtain both subjective and objective measures evaluating MT and performance outcomes (i.e., The FA match-day assessor referee reports) in a bid to strengthen the effectiveness of future MT interventions. In essence, this is believed a key requirement in the development of a MTETP in the continued effort to facilitate officiating excellence and effective referee development. Taken together, this information outlines the strengths and weakness of the current MTETP intervention, provides a good starting point for future research in an effort to develop more robust MT interventions, and assists sport psychology consultants who endeavour to enhance MT in football officials.

## CHAPTER VI

### Study Three

#### *An Evaluation of a Mental Toughness Education and Training Programme (MTETP) for Early Career English Football League Referees<sup>3</sup>*

##### 6.1 Introduction

Chapter V (i.e., pilot study) of this thesis was one of the first studies in the literature to evaluate a MT programme in sport performers outside of an athlete context. Following the recommendations from the pilot study, additional interventions evaluating the effectiveness of long-term MTETP and performance are warranted in football officiating. This need for interventions of this nature has also been reflected within existing MT research in athletes (e.g., Gordon & Gucciardi, 2011; Gucciardi et al., 2009c; 2009d). Notably, support for long-term multimodal interventions intended to enhance factors associated with sporting excellence and improve performance is evident (e.g., Thelwell & Maynard, 2003). Thus, evaluating a MTETP intervention in conjunction with referee performance outcomes over the course of an EFL season might further enhance the understanding of MT development in elite football officiating.

With this in mind, Slack et al.'s (2013; in press) research findings and those discussed in the pilot study provided the theoretical underpinnings of the present MTETP intervention. This study will adopt a single-subject, multiple-baseline-across-participants design similar to that employed in existing sport psychology literature (e.g., Thomas, Maynard, & Hanton, 2007). This type of investigation enables the discovery of

---

<sup>3</sup> The study reported in this chapter is currently under review for publication: Slack, L. A., Maynard, I. W., Butt, J., & Olusoga, P. (under review). An evaluation of a Mental Toughness Education and Training Program (MTETP) for early career English Football League referees. *The Sport Psychologist*.

subtle positive behavioural, emotional, and cognitive changes in individuals that might go undetected in nomothetic, group-based designs (Barker, McCartney, Jones, & Moran, 2011; McDougall, 2013). Central to single-subject investigations, visual assessment of the data lends itself to evaluating the immediacy and level of change across all intervention phases (Hrycaiko & Martin, 1996). It is important to note that a large part of single-subject design research has been directed at enhancing performance excellence factors (see Barker, Mellalieu, McCartney, Jones, & Moran, 2013, for a review). Supplementing this research, ideographic designs have allowed for individualised interventions to be tailored for performers competing in modern-day, elite-level sport (e.g., Barker & Jones, 2008; Bell, Skinner, & Fisher, 2009; Freeman, Rees, & Hardy, 2009; Jordet, 2005; Neil, Hanton, & Mellalieu, 2013; O'Brien, Mellalieu, & Hanton, 2009; Pain, Harwood, & Anderson, 2011). Therefore, it is anticipated that employing a research design of this nature might build upon the content, structure, and findings of the pilot study when evaluating the effectiveness of a MTETP for English football referees.

The attainment of referee performance outcomes of EFL matches (i.e., The FA match-day assessor referee reports) provides an ecologically valid competitive indicator which has seldom been evaluated in current MT interventions. In doing so, this will overcome a drawback of the pilot study and other experimental-based studies regarding the effective transferability of results into applied football refereeing settings (e.g., Catteeuw, Helsen, Gilis, Van Roie et al., 2009; Gilis et al., 2006; MacMahon et al., 2007). Specifically, The FA match-day assessor referee report has been designed to objectively evaluate the on-field performance of referees against a stringent marking guide and list of competencies. It should be noted that when becoming an FA registered match-day assessor, all assessors have to undertake a comprehensive FA training course and are subsequently monitored annually (Weight, Hannon, & Williams, 2010). In a bid to procure performance outcomes consistently throughout the EFL season, it was

deemed that officials operating at level one (i.e., national list) and/or level two (i.e., panel list) of the English football refereeing pyramid might be best suited. This is due to the fact that referees at level one and two officiate within professional football (levels one to five of the English football league system), who get assessed on every competitive EFL fixture in which they officiate. With this in mind, early career EFL referees were targeted because this transitional period in sport (i.e., intermediate- to elite-level) is seen as a critical juncture that requires specific MT components (Connaughton et al., 2010; Slack et al., in press). Additionally, existing research has expressed the necessity of further psychological programmes not only to improve elite refereeing performance, but also enhance effective referee development (e.g., Gilis et al., 2009). In essence, early career EFL referees are a developing group of first and second year national list referees appointed by The FA to referee matches in the EFL.

## **6.2 Study Purposes**

Whilst the main purpose of the study focuses on the development of MT, it is also endeavoured to enhance objective performance outcomes in the context of EFL officiating. Based on the single-subject design of the study, the focus of change was centred on the mean average ratings of MT and performance throughout baseline and intervention phases of each referee. It is anticipated that by evaluating measures of MT and performance outcomes across self, coach, and match-day assessor referee reports, that the understanding of MT research and consultancy might be enhanced. To this end, the purpose of the study was to examine the effectiveness of a long-term MTETP intervention tailored for early career EFL referees. Specifically, the MTETP was evaluated throughout the entire 2012-2013 EFL season. We hypothesise that the MT and performance mean average scores of EFL referees throughout the intervention phase will be higher than those at the baseline phase.

## **6.3 Method**

### **6.3.1 Participants**

Following institutional ethics approval procedures (see appendix L), purposive sampling (Patton, 2002) was utilised to recruit three EFL referees ( $M_{age} = 28.67$  years) and their coach (i.e., same coach for all three referees). This particular coach had over 10 years of EFL officiating experience and the 2012-2013 EFL season was his ninth as an elite-level coach. At the time of the intervention, all referees were recently promoted EFL referees, with an average of six months of refereeing experience collectively at this level (i.e., level one national list). For all participants who agreed to participate in the study, an informed consent form and a letter of information detailing the participation requirements was completed.

### **6.3.2 Dependent (target) variables**

#### **6.3.2.1 Sport-general Mental Toughness**

The MTQ-48 (Clough et al., 2002) was administered to referees and the coach once throughout the baseline phase (August, 2012) and three times throughout the intervention phase (early - October, 2012; middle - December, 2012; late - April, 2013) of the study. The MTQ-48 is designed to measure MT in a sport-general context (see Appendix J) and is a 48-item measure that comprises six subscales: (a) challenge (e.g., challenges usually bring out the best in me), (b) commitment (e.g., I don't usually give up under pressure), (c) control of emotions (e.g., even when under considerable pressure I usually remain calm), (d) control of life (e.g., I generally feel that I am in control of what happens in my life), (e) confidence in own abilities (e.g., I am generally confident in my own abilities), and, (f) interpersonal confidence (e.g., I usually take charge of a situation when I feel it is appropriate). The items are rated on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Support for the psychometric properties of the MTQ-48 (e.g., construct validity, factorial validity, criterion validity)

has been widely demonstrated in the current sport psychology literature (e.g., Crust & Swann, 2011; Perry et al., 2013).

### **6.3.2.2 Referee-specific Mental Toughness**

Developed from Slack et al.'s studies (2013; in press), a referee-specific measure of MT attributes, behaviours, and cognitions was issued to gain an evaluation of MT (see appendix O). This measure was completed by referees after each EFL match undertaken. This three-part self-report instrument was rated on a 10-point Likert scale ranging from 1 = very poor to 10 = excellent. First, the MT attributes report-instrument consisted of 21-items measuring seven MT attributes (Slack et al., 2013): (a) achievement striving, (b) coping with pressure, (c) high work-ethic, (d) resilience, (e) robust self-belief, (f) sport intelligence, and, (g) tough attitude. Second, the MT behaviours report-instrument measured seven behaviours (Slack et al., in press): (a) act as a barrier between players, (b) clear commands and signals, (c) create on-field time for yourself, (d) looking calm and composed, (e) make eye-contact with player/s, (f) strong body language, and, (g) work hard [18 yard] box-to-box. And third, the MT cognitions report-instrument measured 10 cognitions (Slack et al., in press): (a) awareness of own emotions, (b) awareness of players' emotions, (c) block-out crowd noise, (d) draw upon life experiences, (e) draw upon refereeing experiences, (f) focus in blocks of five minutes, (g) focus on the next decision, (h) park-up/bin a decision, (i) tactical awareness, and, (j) trust in decisions.

### **6.3.2.3 Referee performance outcomes**

The English FA match-day assessor referee report used on match-day officials evaluates five performance-related outcomes: (a) application of the “Laws of the Game,” and disciplinary control, (b) management of game and players, (c) personality, (d) teamwork, and, (e) fitness, positioning, and movement. All assessor reports on refereeing performance are rated on a scale ranging from 5.0 = very poor performance



to 10.0 = excellent performance (see appendix P). On the day of receiving their assessor report, each participant emailed the document to the first author.

### 6.3.3 Intervention design and procedure

The present study employed a single-subject, multiple-baseline-across-participants design to evaluate a MTETP in early career EFL referees. This intervention occurred over the course of the EFL 2012-2013 season and consisted of two phases: (a) baseline phase, and, (b) intervention phase. Given that the study contained two dependent variables (i.e., MT and performance) the team of researchers made an a priori decision to sequentially implement the intervention at specific junctures (Thelwell, Greenlees, & Weston, 2006). Therefore, the staggered multiple-baseline-across-individuals intervention phase, for Referee A, was started after three competitive EFL matches. Referee B received the intervention after match four, and Referee C received the intervention after match five. Following recommendations by Callow et al. (2001), each participant received the intervention for the same number of EFL matches (18 matches) in an effort to control for threats to internal validity (e.g., type II error). Following this, the time taken to complete the intervention phase for Referee A was 203 days, 197 days for Referee B, and 189 days for Referee C. As a result of the pilot study and its findings, several modifications were made to the content and structure of the MTETP in an effort to maximise its effectiveness. Throughout the baseline phase, no MTETP was provided to the referees. During the intervention phase, referees received the MTETP which consisted of six workshops delivered monthly that included four individual-based ( $M_{hours} = 2.33$ ) and two group-based elements ( $M_{hours} = 3.56$ ). In a similar philosophical approach to the pilot study, the first author carried out self-reflection by reviewing the audio recordings of each workshop. Table 6.1 outlines the timing, theme, content, exercises, and overall purposes of each workshop contained within the MTETP (see appendix M).

Table 6.1 A summary of the Mental Toughness Education and Training Programme (MTETP) delivered to each referee throughout the course of the 2012-2013 English Football League season.

Timing of the MTETP	Workshop Theme	Content and Exercises	Overall Purposes of the Workshop
English Football League season Early Intervention (Sept-Oct 2012)	1. English Football League refereeing: Mental Toughness attributes a. Individual-based workshop	I. Coping with pressure exercise. a. coping strategies activity.	I. To increase awareness about on and off-field situations where referees and oneself perceive pressurised situations. To increase awareness about one's own personal coping strategies and develop a list of adaptive coping strategies for football refereeing.
		II. Tough attitude exercise. a. Quotes activity b. "Controlling the controllables" activity	II. To recall and identify a number of quotes/statements underpinning a tough attitude and develop a list of controllable and uncontrollable football refereeing factors.
		III. High work-ethic analysis. a. video footage activity	III. To identify elements of English Premier League football referees displaying a high Work-ethic during matches.
		IV. Resilience evaluation. a. Football referee's activity. b. Self-activity.	IV. To increase awareness about how other football referees and oneself have "bounced-back" and overcome adversity.
		V. Robust self-belief exercise. a. What makes a confident football referee activity?	V. To identify successful refereeing decisions and performances that maintain confidence. Identify sources and types of factors that build and enhance self-confidence.
		VI. Achievement striving exercise a. Traffic-light activity b. Goal-setting activity	VI. To increase awareness about the guidelines to potential referee success/excellence. To illustrate the importance of short-, intermediate-, long-term goals that one wants to achieve. Develop and a "Road Map" of process, performance, and outcome goals.
		VII. Sport Intelligence. a. What makes an intelligent referee activity? b. English Premier League referees' quotes.	VII. To increase awareness about the importance of sport intelligence in English Football League refereeing.
		VIII. Applied Relaxation training a. Applied Relaxation introduction b. Progressive relaxation	VIII. To increase awareness about physical, emotional, and psychological signs of pressure. To illustrate the importance of attaining effective thoughts and feelings pre, during, and post-match. To gain experience in those actions techniques that enables this process.

Table 6.1 A summary of the Mental Toughness Education and Training Programme (MTETP) delivered to each referee throughout the course of the 2012-2013 English Football League season. (Continued).

Timing of the MTETP	Workshop Theme	Content and Exercises	Overall Purposes of the Workshop
English Football League season Early Intervention (Oct-Nov 2012)	2. On-field situations demanding Mental Toughness: Awareness training of MT-type behaviours a. Individual-based workshop	I. Player (s) reactions to a decision exercise a. Video analysis x1 b. Ranking of top three most important behaviours	I. To identify the Mental Toughness type behaviours displayed by English Premier League referees. To increase awareness of the Mental Toughness type behaviours and compare and contrast rankings with English Premier League referees.
		II. Manager (s) reaction to a decision/manager confrontation exercise a. Video analysis x3 b. "What-If" scenario exercise	II. To increase awareness about manager situations demanding Mental Toughness. To increase awareness about situations demanding Mental Toughness that may arise during a match.
		III. Player vs. player altercation exercise a. Video analysis x2 b Act as a barrier between players activity	III. To identify the Mental Toughness type behaviours displayed by English Premier League referees. To increase awareness about acting as a barrier during a match.
		IV. Mass-player confrontation exercise a. video analysis x1 b. Ranking of top three most important behaviours	IV. To identify the Mental Toughness type behaviours displayed by English Premier League referees To increase awareness of the Mental Toughness type behaviours and compare and contrast rankings with English Premier League referees' results.
		V. Applied Relaxation training a. Release-only relaxation b. Cue-controlled relaxation	V. To increase awareness about physical, emotional, and psychological signs of pressure. To illustrate the importance of attaining effective thoughts and feelings pre, during, and post-match. To gain experience in those actions techniques that enables this process.
English Football League season Middle Intervention (Dec 2012)	3. Situations demanding Mental Toughness: On-field role-play a. Individual-based workshop	I. First-half of the football match a. Player (s) reaction to a decision b. Player vs. player altercations	I. To expose English Football League referees to on-field situations demanding Mental Toughness.
		II. Second-half of the football match a. Mass-player confrontation b. A game-changing decision	II. To expose English Football League referees to on-field situations demanding Mental Toughness in refereeing.
		III. Post-match debrief a. Interview	III. To expose English Football League referees to competition-specific situations demanding Mental Toughness.
		IV. Applied Relaxation training a. Differential relaxation	IV. To increase awareness about physical, emotional, and psychological signs of pressure. To illustrate the importance of attaining effective thoughts and feelings pre, during, and post-match. To gain experience in those actions techniques that enables this process.

Table 6.1 A summary of the Mental Toughness Education and Training Programme (MTETP) delivered to each referee throughout the course of the 2012-2013 English Football League season. (Continued).

Timing of the MTETP	Workshop Theme	Content and Exercises	Overall Purposes of the Workshop
English Football League season Middle Intervention (Dec 2012–Jan 2013)	4. On-Field Situations demanding Mental Toughness: I. Awareness training of MT-type cognitions a. Individual-based workshop	I. Attentional focus exercise a. Effective concentration activity b. External distractions activity c. Internal distractions activity	I. To increase awareness about cues that one normally attends to and should be attending to during the decision-making process and performance. To increase about irrelevant external and internal distracting cues.
		II. "P.A.R.C." up decisions/performance exercise a. "P.A.R.C." up activity	II. To understand the process of P.A.R.C.
		III. Personal dialogue exercise a. Awareness of self-talk activity	III. To understand the content and nature of own self-talk.
		IV. Acknowledge self-talk exercise a. Acknowledge thoughts and emotions activity	IV. To increase awareness about the nature of own thoughts and emotions.
		V. Rationalise situations, thoughts, and emotions exercise a. Think positive quote b. Courage in convictions quote c. Keep moving forward quote d. Thought stopping quote e. Put things into perspective quote	V. To increase awareness about how English Premier League referees ( and as a person) rationalise refereeing situations, performance, decisions, and personal thoughts and feelings.
		VI. Focus and refocusing techniques exercise a. Thought stopping activity b. Stay in the left lane activity c. Walk the self-talk activity d. Walk the walk activity	VI. To increase awareness and develop on-field focus and refocus techniques by identifying effective visual, cognitive, and behavioural responses during competition.
		VII. Not dwelling on decisions exercise a. Video analysis x2 b. "What-if" scenario activity	VII. To increase awareness about on-field situations demanding Mental Toughness experienced by oneself during the current season. To identify and develop Mental Toughness type cognitions during these situations.
		VIII. A game-changing decision exercise a. Video analysis x2 b. "What-if" scenario activity	VIII. To increase awareness about on-field situations demanding Mental Toughness experienced by oneself during the current season. To identify and develop Mental Toughness type cognitions during these situations.

Table 6.1 A summary of the Mental Toughness Education and Training Programme (MTETP) delivered to each referee throughout the course of the 2012-2013 English Football League season. *(Continued)*.

Timing of the MTETP	Workshop Theme	Content and Exercises	Overall Purposes of the Workshop
English Football League season Late Intervention (March 2013)	5. Off-Field Situations demanding Mental Toughness: Media Role-Play and Training a. Group-based workshop	IX. A game-changing decision exercise a. Video analysis x2 b. "What-if" scenario activity	IX. To increase awareness about on-field situations demanding Mental Toughness experienced by oneself during the current season. To identify and develop Mental Toughness type cognitions during these situations.
		X. Applied Relaxation training a. Rapid relaxation	X. To increase awareness about physical, emotional, and psychological signs of pressure. To illustrate the importance of attaining effective thoughts and feelings pre, during, and post-match. To gain experience in those actions techniques that enables this process.
		I. Media exposure exercise a. Post-match media interview b. post-match media interview debrief	I. To expose English Football League referees to off-field situations demanding Mental Toughness experienced by English Premier League referees.
English Football League season Late Intervention (April 2013)	6. Off-Field Situations demanding Mental Toughness: Peer- and Coach-Assessment of Performance a. Group-based workshop	II. Media-based training exercise a. Sources of football media activity b. Type of football media issues activity c. The football media as "Stressor" activity d. Effective coping strategies activity e. "What-if" scenario activity x6	II. To increase awareness about sources and issues related to the football media as well as effective strategies when dealing with the media scrutiny in English football.
		I. Video-based evaluation of performance a. A contentious decision x3 b. A game-changing decision x3 c. A mass-player confrontation x2 d. "What-if" scenario activity x2	I. To increase awareness about on and off-field situations demanding Mental Toughness experienced by oneself and other Football League referees during the current season. To identify and develop Mental Toughness type attributes, behaviours, and cognitions during these situations.

Sport psychology research has recently identified the value of social validation when examining the intervention effects specifically within single-subject designs (Page & Thelwell, 2013). Therefore, in a similar design to the pilot study, referees and the coach's subjective accounts of the MTETP by way of an open-ended SVQ was gathered three weeks after the intervention (May, 2013). It is anticipated that by understanding and detailing the impact that the MTETP had on refereeing performance will provide further support to the evaluation of the intervention's effectiveness. Following the recommendations of Martin, Thompson, and Regehr (2004), the open-ended SVQ was structured into three key sections: (a) thoughts about the aims, content, and structure of the MTETP, (b) how the MTETP and the workshops have affected the on-field performance of each referee, and, (c) the potential development areas of the MTETP and the workshops within.

#### **6.3.4 Data analysis**

The aim of the present study was to examine changes in MT and performance mean average scores of EFL referees across the baseline phase and early, middle, and late intervention phases. In accordance with recent single-subject design research (e.g., Neil et al., 2013; O'Brien et al., 2009), data analysis procedures were separated into three specific stages. Firstly, referees MT and performance scores were plotted for each match over the course of the 2012-2013 EFL season. As Hrycaiko and Martin (1996) previously recommended, graphic inspection strategies were adhered to for establishing a significant experimental effect. This protocol comprised: (a) the immediacy of an effect following the intervention, (b) the size of the effect after the intervention, (c) the number of times that effect was replicated across referees, where the increased consistency indicates a generalised pattern of the experimental effect, and, (d) the number of overlapping data points between the pre-intervention and post-intervention

phases, where the lack of overlapping data points supports the effectiveness of the intervention.

Secondly, descriptive statistics were tabulated to determine whether experimental effect had occurred. As such, the means, standard deviations, and mean difference scores were calculated for all MTQ-48 subscales across baseline and intervention phases. When calculating an effect for single-subject design research, percentage of non-overlapping data (PND) methods have been extensively used (Beretvas & Chung, 2008; Schlosser, Lee, & Wendt, 2008). This particular method, calculates the number of data points in the intervention phase above the highest data point in the baseline phase (Gage & Lewis, 2013). Scruggs and Mastropieri (2001) indicated that PND scores of 90%-100% signify very high experimental effect, 70%-90% signify high experimental effect, 50%-70% signify moderate experimental effect, and below 50% signify low experimental effect. Following similar methods deployed in sport psychology research (Bell, Skinner, & Halbrook, 2011), means, standard deviations, mean difference scores, and number/percentage of non-overlapping data points were calculated for all referee-specific MT measures and performance scores for each match across the baseline phase and all intervention phases.

Thirdly, social validation evaluation procedures were undertaken. As part of this process, each participant was asked to individually complete and return the SVQ via email at a time most convenient to each participant. In total, 12 independent statements were extracted from the text of the open-ended SVQs. Slight amendments to the text were made by the first author to aid the flow of the SVQ statements. Each statement was then inductively content analysed (Patton, 2002) by two researchers. Three meetings were held with the two researchers until all nine themes were established and consensus had been upheld on all statements (Lincoln & Guba, 1985).

## **6.4 Results**

### **6.4.1 Sport-general Mental Toughness**

#### **6.4.1.1 Self-report data**

As shown in Table 6.2, all three early career EFL referees reported higher MTQ-48 mean average scores for total MT in the intervention phase compared to the baseline phase. Referee A's MT score increased by .11, referee B's score increased by .66, and referee C's increased by .32. In addition, when inspecting the six MTQ-48 subscales, referee A reported positive changes in four subscales (i.e., commitment, control of emotions, confidence in own ability, and interpersonal confidence), referee B in five subscales (i.e., all but control of life), and referee C in five subscales (i.e., all but commitment). Taken together, only three negative changes of the MTQ-48 subscales across all three referees were reported at the late intervention phase (Referee A: challenge, control of life; Referee C: commitment).

#### **6.4.1.2 Coach-report data**

The coach of all three referees also reported higher MTQ-48 mean average scores for total MT in the intervention phase compared to the baseline phase (see Table 6.3) The coach-report of Referee A's MT score increased by .19, referee B's score by .52, and referee C's increased by .23. In addition, when inspecting the six MTQ-48 subscales, the coach-report of referee A acknowledged positive changes in three subscales (i.e., commitment, control of emotions, and confidence in own ability), referee B in all six subscales, and referee C in five subscales (i.e., all but control of emotions). In sum, the only negative change of the MTQ-48 subscales across all three referees was reported by the coach at the late intervention phase (Referee A: interpersonal confidence).



Table 6.2 Means (SD) for subscales of the Mental Toughness Questionnaire-48 throughout the Mental Toughness Education and Training Programme (MTETP): Difference in Mental Toughness self-reports between the baseline phase and intervention phases for each referee.

Participant	Variable	Means (SD)							
		Baseline		Early Intervention		Middle Intervention		Late Intervention	
		Self-Report	Mean Diff.	Self-Report	Mean Diff.	Self-Report	Mean Diff.	Self-Report	Mean Diff.
Referee A	<i>Chall.</i>	3.75 (.71)		3.38 (.74)	-.37	3.5 (.53)	-.25	3.5 (.34)	-.25
	<i>Comm.</i>	3.75 (.89)		3.82 (.60)	+.07	3.91 (.30)	+.16	4 (.63)	+.25
	<i>Cont Emo.</i>	2.86 (1.36)		2.86 (.98)	0.0	3.14 (.69)	+.28	3.29 (.91)	+.43
	<i>Cont Life.</i>	4 (.58)		3.86 (.69)	-.14	3.86 (.53)	-.14	3.86 (.69)	-.14
	<i>Conf Abil.</i>	3.44 (1.23)		3.44 (1.04)	0.0	3.67 (1.00)	+.23	3.67 (.95)	+.23
	<i>Inter Conf.</i>	2.83 (1.17)		2.83 (1.03)	0.0	2.67 (.82)	-.16	3 (1.02)	+.17
	<i>MT.</i>	3.44 (1.07)		3.37 (.97)	-.07	3.46 (.74)	+.02	3.55 (.87)	+.11
Referee B	<i>Chall.</i>	3 (1.25)		3.38 (.87)	+.38	3.63 (.52)	+.63	3.63 (.43)	+.63
	<i>Comm.</i>	3.09 (1.04)		3.49 (.91)	+.40	4 (.63)	+.91	4 (.51)	+.91
	<i>Cont Emo</i>	2.86 (1.07)		2.86 (1.07)	0.0	3 (.82)	+.14	3.29 (.98)	+.43
	<i>Cont Life</i>	3.57 (.98)		3.57 (.72)	0.0	3.57 (.53)	0.0	3.57 (.98)	0.0
	<i>Conf Abil.</i>	2.77 (.67)		3.33 (.61)	+.56	3.67 (.87)	+.90	3.67 (.52)	+.90
	<i>Inter Conf.</i>	3.66 (.82)		3.66 (.76)	0.0	3.83 (.98)	+.17	4 (.76)	+.34
	<i>MT.</i>	3.13 (.98)		3.45 (.98)	+.32	3.65 (.76)	+.52	3.69 (.81)	+.66
Referee C	<i>Chall.</i>	3.5 (1.07)		3.75 (.71)	+.25	3.88 (.35)	+.38	3.75 (.71)	+.25
	<i>Comm.</i>	4 (.63)		3.45 (.69)	-.55	4.1 (.70)	+.10	3.84 (.60)	-.16
	<i>Cont Emo.</i>	2.9 (1.00)		3.57 (1.13)	+.67	3.29 (.76)	+.100	3.45 (.98)	+.55
	<i>Cont Life.</i>	3.15 (.90)		3.29 (.95)	+.14	3.29 (.76)	+.14	3.6 (.53)	+.45
	<i>Conf Abil.</i>	3.33 (.87)		3.33 (.87)	0.0	3 (.87)	-.33	3.7 (.71)	+.37
	<i>Inter Conf.</i>	2.7 (.82)		3.83 (.75)	+.113	3.33 (.52)	+.63	3.54 (.84)	+.74
	<i>MT.</i>	3.33 (.97)		3.52 (.80)	+.19	3.52 (.77)	+.19	3.65 (.70)	+.32

Legend: Mental Toughness Questionnaire-48 (MTQ-48): Chall. = Challenge; Comm. = Commitment; Cont Emo. = Control of Emotions; Cont Life. = Control of Life; Conf Abil. = Confidence in Own Abilities; Inter Conf. = Interpersonal Confidence; MT. = Total Mental Toughness; Mean Diff. = Difference in mean response from baseline phase (+/- = direction of the change).

Table 6.3 Means (SD) for subscales of the Mental Toughness Questionnaire-48 throughout the Mental Toughness Education and Training Programme (MTETP): Difference in Mental Toughness coach-reports between the baseline phase and intervention phases for each referee.

Participant	Variable	Means (SD)							
		Baseline		Early Intervention		Middle Intervention		Late Intervention	
		Coach-Report	Mean Diff.	Coach-Report	Mean Diff.	Coach-Report	Mean Diff.	Coach-Report	Mean Diff.
Referee A	Chall.	3.75 (.46)		3.75 (.46)	0.0	3.25 (.46)	-.50	3.75 (.46)	0.0
	Comm.	3.73 (.90)		3.82 (.70)	+09	3.82 (.92)	+09	4.1 (.74)	+23
	Cont Emo.	2.29 (.49)		2.29 (.49)	0.0	2.29 (.49)	0.0	3 (.83)	+71
	Cont Life.	3.57 (.79)		3.71 (.65)	+14	3.71 (.49)	+14	3.57 (.79)	0.0
	Conf Abil.	3.33 (.87)		3.44 (.99)	+11	3.44 (.83)	+11	3.78 (1.20)	+45
	Inter Conf.	4.18 (.41)		4 (.37)	-18	4 (.63)	-18	3.5 (.84)	-68
	MT.	3.48 (.87)		3.5 (.94)	+02	3.42 (.84)	-06	3.67 (.86)	+19
Referee B	Chall.	3 (.53)		3.5 (.53)	+50	3.25 (.71)	+25	3.38 (.52)	+38
	Comm.	3.54 (.82)		4 (.45)	+46	3.82 (.75)	+28	3.91 (.54)	+37
	Cont Emo.	2.43 (.53)		3 (.58)	+57	2.72 (.49)	+29	3.14 (.38)	+71
	Cont Life.	3.29 (.76)		3.71 (.49)	+42	3.86 (.69)	+57	4 (.58)	+71
	Conf Abil.	3 (.87)		3.56 (.53)	+56	3.44 (.88)	+44	3.56 (.73)	+56
	Inter Conf.	3 (.89)		3.83 (.41)	+83	3.5 (.55)	+50	3.5 (.55)	+50
	MT.	3.08 (.79)		3.63 (.57)	+55	3.46 (.77)	+38	3.60 (.61)	+52
Referee C	Chall.	3.45 (.52)		3.38 (.74)	-07	3.13 (.89)	-32	3.63 (.52)	+18
	Comm.	4 (.63)		3.82 (.60)	-18	4.1 (.83)	+10	4.18 (.60)	+18
	Cont Emo.	2.72 (.90)		2.72 (.95)	0.0	2.72 (.95)	0.0	2.72 (.76)	0.0
	Cont Life.	3.15 (1.21)		3.86 (.69)	+71	3.43 (1.13)	+28	3.57 (.98)	+42
	Conf Abil.	3.22 (.83)		3.22 (.67)	0.0	3.33 (.71)	+11	3.56 (.53)	+34
	Inter Conf.	2.83 (.75)		3.17 (.41)	+34	3 (.63)	+17	3 (.63)	+17
	MT.	3.29 (.90)		3.4 (.79)	+11	3.35 (.89)	+06	3.52 (.80)	+23

Legend: Mental Toughness Questionnaire-48 (MTQ-48): Chall. = Challenge; Comm. = Commitment; Cont Emo. = Control of Emotions; Cont Life. = Control of Life; Conf Abil. = Confidence in Own Abilities; Inter Conf. = Interpersonal Confidence; MT. = Total Mental Toughness; Mean Diff. = Difference in mean response from baseline phase (+/- = direction of the change).

## **6.4.2 Referee-specific Mental Toughness**

All three early career EFL referees reported all positive changes on referee-specific MT attribute, behaviour, and cognition measures at the late intervention phase compared to the baseline phase (see Tables 6.4, 6.5, 6.6). As a result, seven out of the nine PND scores calculated post-intervention were greater than 70% that signified a high experimental effect.

### **6.4.2.1 Mental Toughness attribute scores**

As illustrated in Figures 6.1, 6.2 6.3 and Tables 6.4, 6.5, 6.6, two officials reported higher mean average MT attribute ratings across early, middle, and late intervention phases compared to the baseline phase. In total, Referee A reported a negative change of .12 with seven non-overlapping data points (PND score of 38.9%; low experimental effect), Referee B had a positive change of 1.05 with 18 non-overlapping data points (PND score of 100%; very high experimental effect), and Referee C had a positive change of .39 with 14 non-overlapping data points (PND score of 77.8%; high experimental effect).

### **6.4.2.2 Mental Toughness behaviour scores**

All three participants reported higher mean average MT behaviour ratings across all intervention phases compared to the baseline phase (see Tables 6.4, 6.5, 6.6; Figures 6.4, 6.5, 6.6). Referee A reported a positive change of .97 with 17 non-overlapping data points (PND score of 94.4%; very high experimental effect) post-intervention. Referee B had a positive change of .16 with nine non-overlapping data points (PND score of 50%; moderate experimental effect), and referee C had a positive change of .59 with 13 non-overlapping data points (PND score of 72.2%; high experimental effect).

### **6.4.2.3 Mental Toughness cognition scores**

As presented in Tables 6.4. 6.5, 6.6 and Figures 6.7, 6.8, 6.9, all three officials reported higher mean average MT cognition ratings across early, middle, and late

Table 6.4 Means, mean difference scores, and number of non-overlapping data points (%) across baseline and intervention phases for referee A.

Referee A													
Measure	B	EI	MDS	NNDP	MI	MDS	NNDP	LI	MDS	NNDP	TI	MDS	NNDP (%)
Referee-Specific MT													
MT Attributes	7.95	7.69	-.26	2/6	7.62	-.33	1/6	8.17	+22	4/6	7.83	-.12	7/18 (38.9)
MT Behaviours	6.67	7.71	+1.04	6/6	7.62	+95	6/6	7.57	+90	5/6	7.64	+97	17/18 (94.4)
MT Cognitions	6.8	7.15	+35	2/6	7.48	+68	6/6	7.9	+90	6/6	7.51	+71	14/18 (77.8)
Performance													
Assessor Mark	8.27	8.3	+03	3/6	8.28	+01	4/6	8.35	+08	3/6	8.31	+04	10/18 (55.6)

Legend: B. = Baseline; EI. = Early Intervention; MI. = Middle Intervention; LI. = Late Intervention; TI. = Total Intervention; MDS. = Mean Difference Score; NNDP (%). = Number of Non-overlapping Data Points (%).

Table 6.5 Means, mean difference scores, and number of non-overlapping data points (%) across baseline and intervention phases for referee B.

Referee B													
Measure	B	EI	MDS	NNDP	MI	MDS	NNDP	LI	MDS	NNDP	TI	MDS	NNDP (%)
Referee-Specific MT													
MT Attributes	8.43	9.40	+ .97	6/6	9.55	+1.12	6/6	9.48	+1.05	6/6	9.48	+1.05	18/18 (100)
MT Behaviours	7.82	7.86	+ .04	1/6	8.12	+ .30	5/6	7.95	+ .13	3/6	7.98	+ .16	9/18 (50)
MT Cognitions	7.03	7.47	+ .44	3/6	8.08	+1.05	6/6	7.68	+ .65	5/6	7.74	+ .71	14/18 (77.8)
Performance													
Assessor Mark	8.15	8.32	+ .17	5/6	8.33	+ .18	4/6	8.28	+ .13	4/6	8.31	+ .16	13/18 (72.2)

Legend: B. = Baseline; EI. = Early Intervention; MI. = Middle Intervention; LI. = Late Intervention; TI. = Total Intervention; MDS. = Mean Difference Score; NNDP (%). = Number of Non-overlapping Data Points (%).

Table 6.6 Means, mean difference scores, and number of non-overlapping data points (%) across baseline and intervention phases for referee C.

Referee C													
Measure	B	EI	MDS	NNDP	MI	MDS	NNDP	LI	MDS	NNDP	TI	MDS	NNDP (%)
Referee-Specific MT													
MT Attributes	8.23	8.6	+37	4/6	8.6	+37	4/6	8.67	+44	6/6	8.62	+39	14/18 (77.8)
MT Behaviours	7.1	7.52	+42	3/6	7.72	+62	4/6	7.84	+72	6/6	7.69	+59	13/18 (72.2)
MT Cognitions	7.34	7.9	+56	5/6	8.13	+79	6/6	8.3	+96	6/6	8.11	+77	17/18 (94.4)
Performance													
Assessor Mark	8.28	8.38	+10	3/6	8.35	+07	3/6	8.38	+10	4/6	8.37	+09	10/18 (55.6)

Legend: B. = Baseline; EI. = Early Intervention; MI. = Middle Intervention; LI. = Late Intervention; TI. = Total Intervention; MDS. = Mean Difference Score; NNDP (%) = Number of Non-overlapping Data Points (%).

intervention phases compared to the baseline phase. Overall, Referee A and B reported a positive change of .71 with 14 non-overlapping data points (PND score of 77.8%; high experimental effect), and referee C had a positive change of .77 with 17 non-overlapping data points (PND score of 94.4% (very high experimental effect)).

### **6.4.3 Referee performance outcomes**

Finally, all three early career EFL referees reported higher mean average match-day assessor performance scores across all intervention phases compared to the baseline phase (see Tables 6.4, 6.5, 6.6 and Figures 6.10, 6.11, 6.12). Specifically, Referee A reported a positive change of .04 with 10 non-overlapping data points (PND score of 55.6%; moderate experimental effect), Referee B had a positive change of .16 with 13 non-overlapping data points (PND score of 72.2%; high experimental effect), and referee C had a positive change of .09 with 10 non-overlapping data points (PND score of 55.6%; moderate experimental effect).

### **6.4.4 Social validation**

The social validation procedures attempted to build upon the aforementioned quantitative data by adding the subjective accounts as to the effectiveness of the MTETP. All three referees and their coach provided 12 pages of type-written responses to the open-ended SVQ (see Appendix N). In doing so, this has strengthened the evaluation of the MTETP effectiveness of early career EFL referees. Similar to the pilot study, these findings are illustrated below within the three key sections of the SVQ.

#### **6.4.4.1 Aims, structure, and content of the MTETP**

##### **6.4.4.1.1 Self and peer-analysis of performance via video footage**

All three referees discussed that the implementation of video footage taken from recent matches had positive effects on MT and performance. In particular, by drawing upon specific situations during competition that required MT, referees were able to assess their MT behaviours and those of others more successfully. One early career EFL

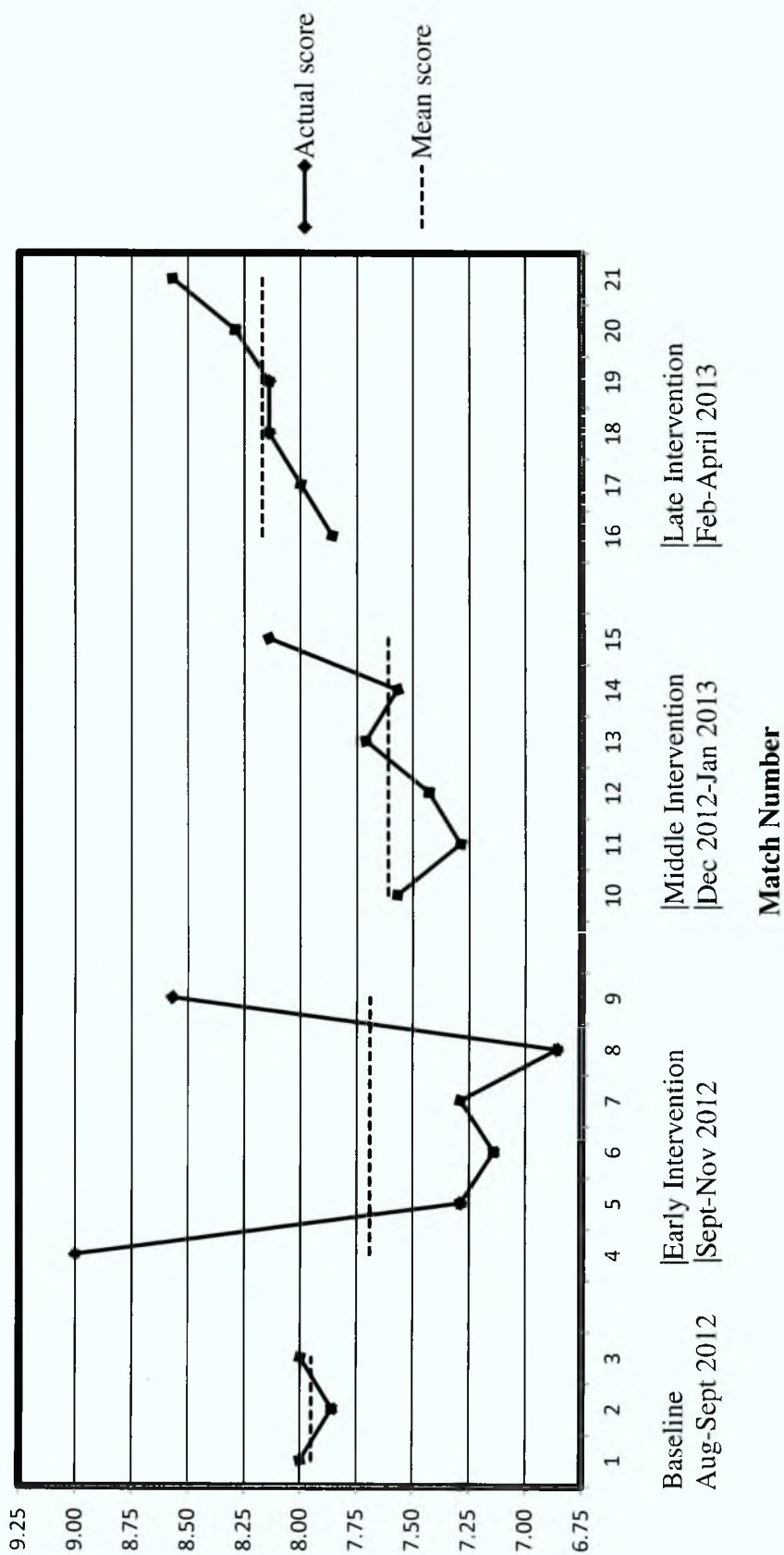


Figure 6.1 Mental Toughness attribute scores for Referee A



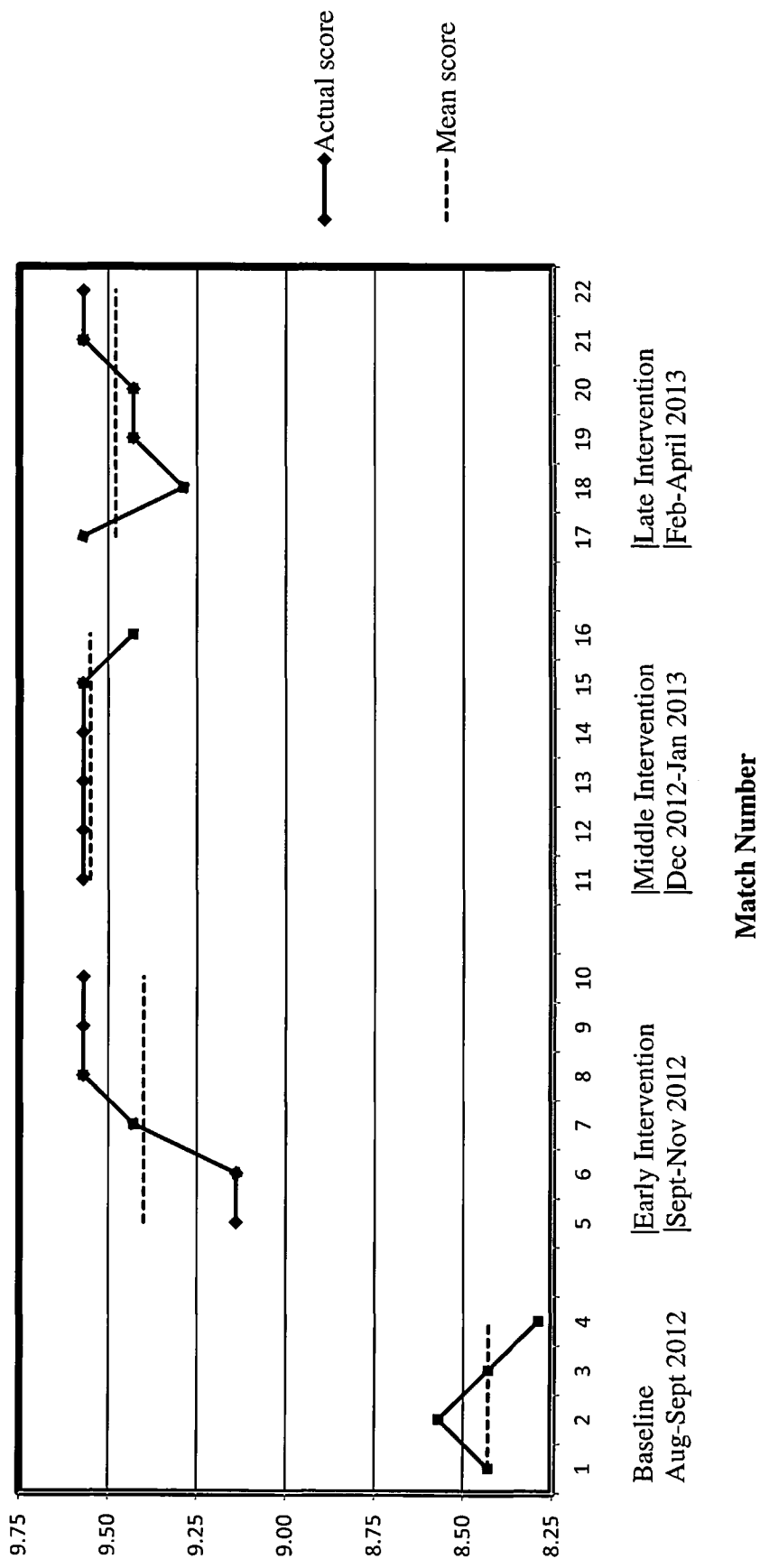


Figure 6.2 Mental Toughness attribute scores for Referee B

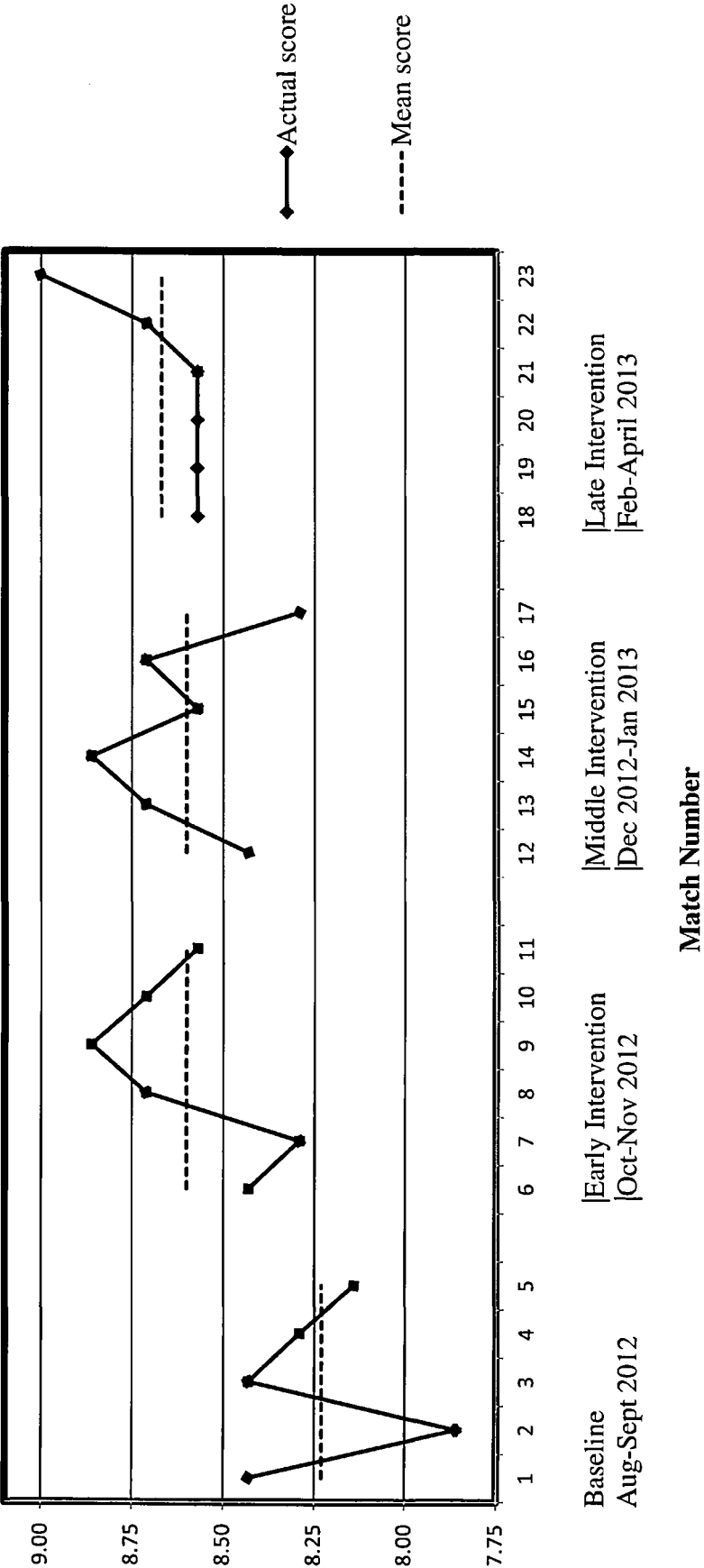


Figure 6.3 Mental Toughness attribute scores for Referee C

referee reported how he was able to adopt greater levels of self-analysis of performance via the use of video footage:

During all the workshops there has been a clear structure and opportunity for me to develop my own understanding of the MTETP. This has enabled constructive learning opportunities, which has made me more aware of my methods and practices and how they can be improved. Using footage of my own games enabled the opportunity to self-analyse, which enabled self-improvement, as it is plain to see. This video footage was beneficial as it made me more conscious of my own actions and encouraged me to be the best I possibly can be. (Referee C)

#### **6.4.4.1.2 Simulation of on and off-field mentally tough situations**

Building upon the pilot study, an amendment to the MTETP was the introduction of two pressure-based role-play activities (workshops three and five). In both role-play exercises, referees described the nature of the activity, the pressure experienced, and what they subsequently learnt under such pressures during the debrief, for example:

The on-field role-play scenario was a great idea and worked really well. There was plenty of conflict to manage and difficult individuals to control. I personally benefitted from the idea of better identifying a troublesome individual. In my game there was a player whose role was to commit several offences and I didn't spot this until it was brought to my attention afterwards. Whilst in a game on the [English] Football League the officials can communicate via the headsets and this player may well have been correctly penalised (i.e., sent-off) through better teamwork. However, from a personal learning point it was the main thing that I took away from the exercise. (Referee B)

#### **6.4.4.1.3 Referee coaching benefits**

Not only did the MTETP prove to have been beneficial to the referees, but also the referee coach. As depicted in the three extracts below, this intervention alleviated any scepticism about the nature of the MTETP, provided further support of improvements in performance, and enhanced the referee-coach relationship:

When asked to be involved in this project I was quite pessimistic about the benefits. However, I must admit I have been impressed with the results to date and I have also witnessed a difference in the attitude shown by the match officials involved. Each official was handpicked and, without exception, became fully engrossed in the project completing every task set

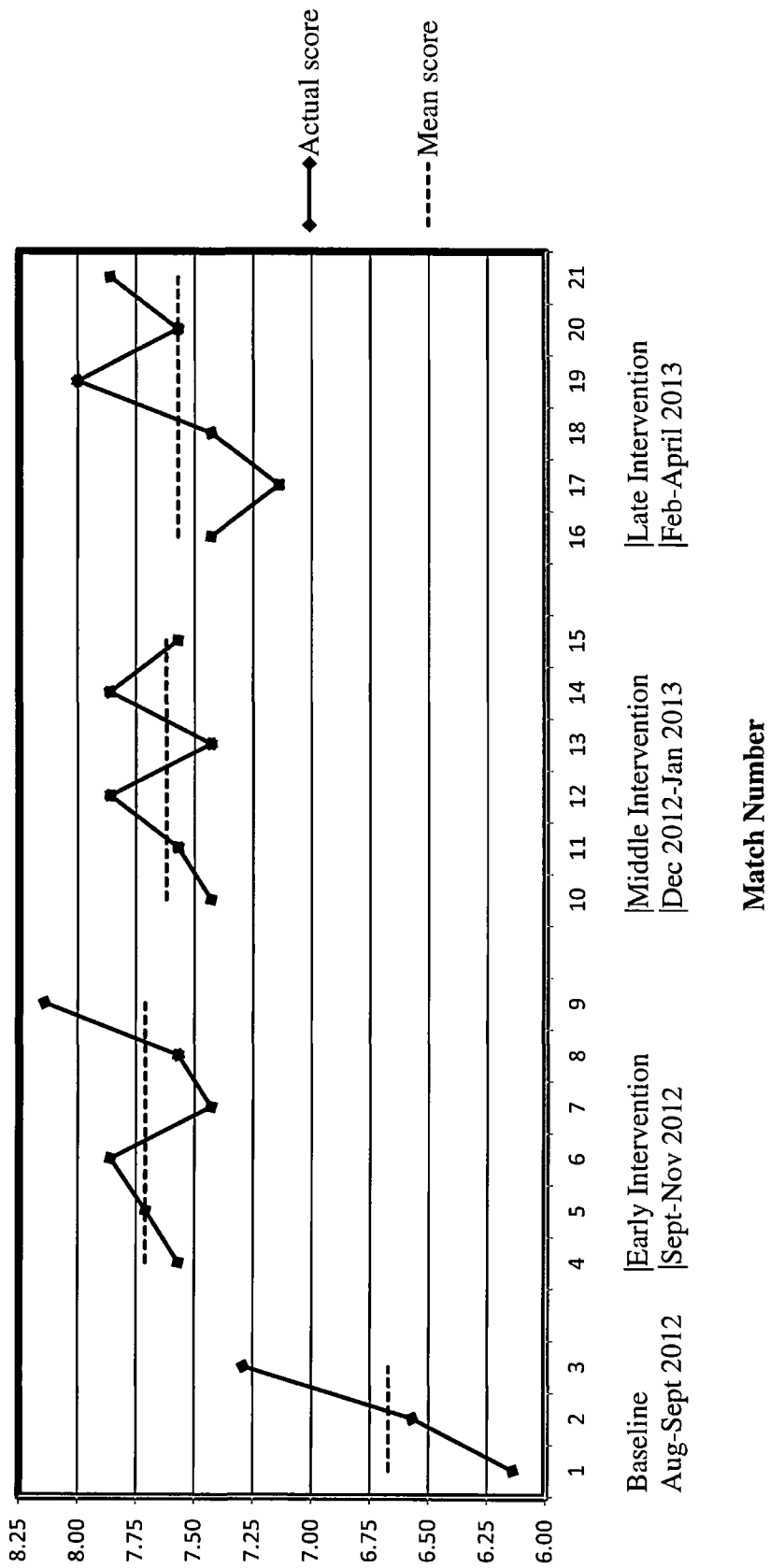


Figure 6.4 Mental Toughness behaviour scores for Referee A

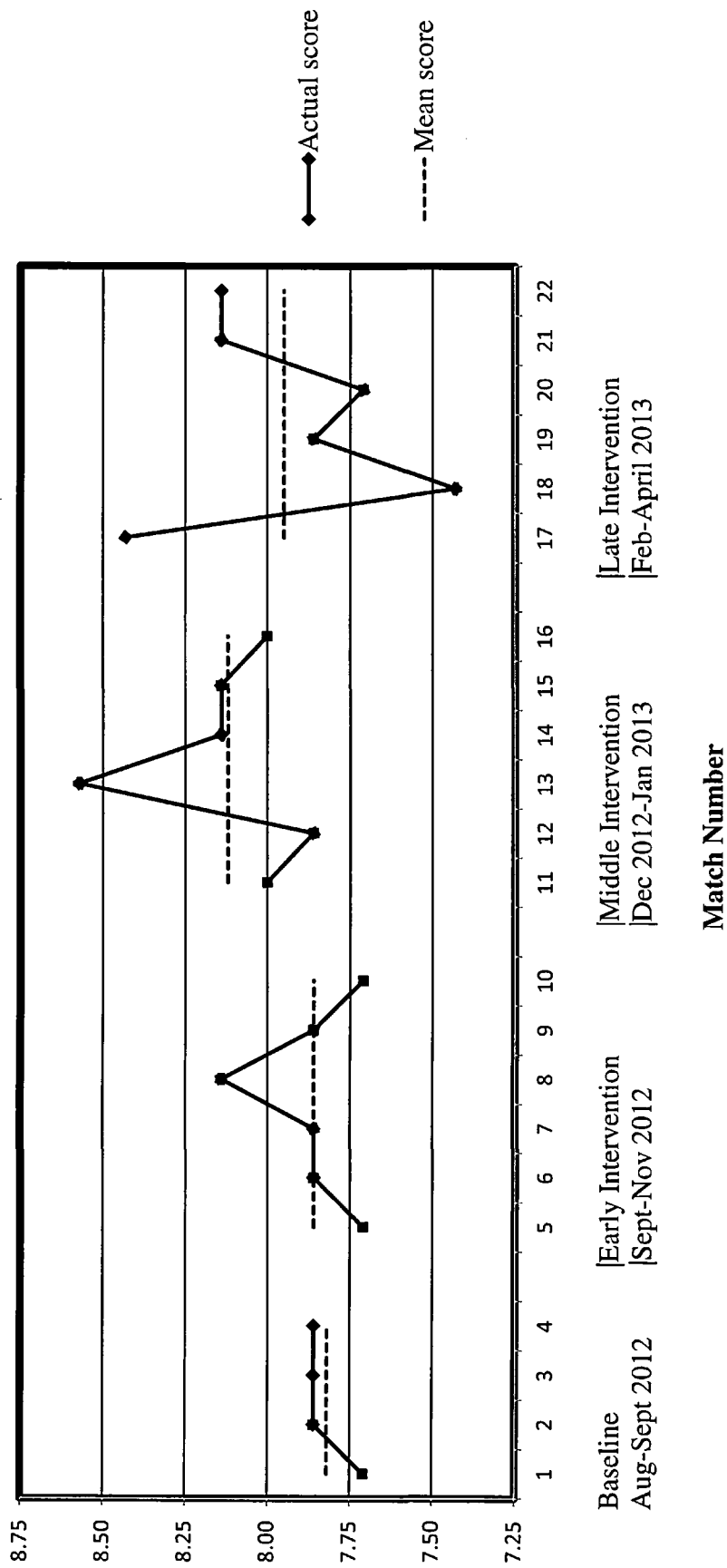


Figure 6.5 Mental Toughness behaviour scores for Referee B

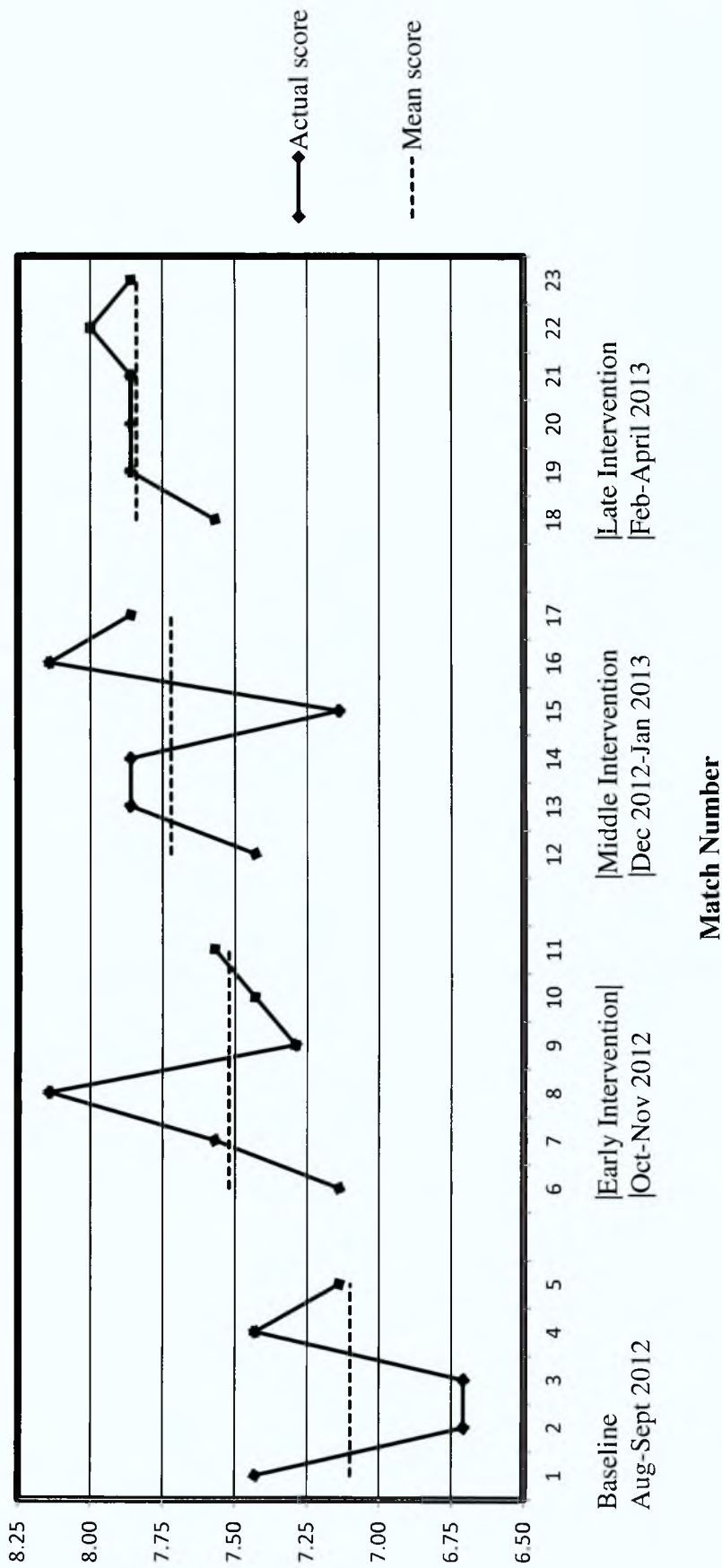


Figure 6.6 Mental Toughness behaviour scores for Referee C

for them. The workshops were tailored to suit the individual needs of each referee. (Coach)

The individual workshops certainly helped with encouraging the match officials to discuss quite freely on and off-the-field mistakes. Consequently, instead of treating them as negatives, they turned them all into positives by realising that without the development points they would not have improved their performances. (Coach)

One of the main benefits I found as a coach was to be able to work more closely on a one-to-one basis with the individuals involved in my group. This enabled me to search out the individual needs of each referee to help them be more professional in their preparation both on and off-the-field to development Mental Toughness. (Coach)

#### **6.4.4.2 The MTETP and its impact on performance**

##### **6.4.4.2.1 Enhanced post-match self-reflection**

Enhancing levels of self-reflection in participants was one central procedure within the MTETP. As a result, referees noted that throughout the season long intervention they all perceive themselves to be more reflective post-competition. In part, one early career referee highlights this enhanced level of reflection in the following statement:

I've found all the workshops very beneficial and it has enabled me to develop my game through greater reflection of my actions and actions taken by others. It has made me reflect upon my performances much more and I now keep a log of games with a few strengths and areas of improvement to remind myself before the next and future games. I have also started a success wall with what I want to achieve in my career. I also review the match on DVD in detail now and refer to assessments and feedback from club managers. (Referee A)

##### **6.4.4.2.2 Greater refereeing intelligence towards competition**

Building on from the pilot study, providing greater awareness of sport intelligence was an additional strategy within the MTETP. In line with this procedure, the awareness was tailored to refereeing within the EFL, and specifically to early career referees operating at level two of the English football refereeing pyramid. As a result, all three referees provided numerous statements explaining how they now dedicate more

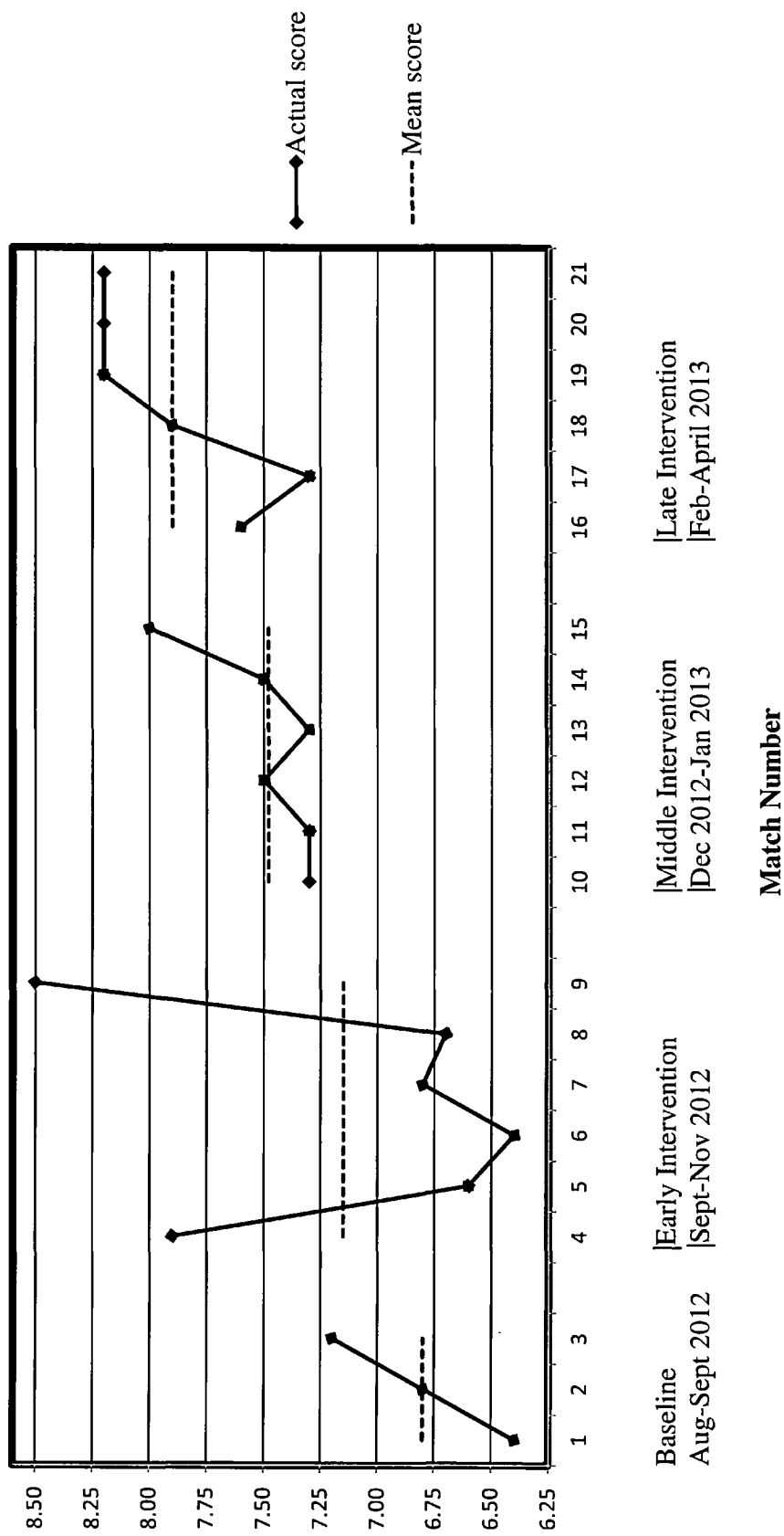


Figure 6.7 Mental Toughness cognition scores for Referee A



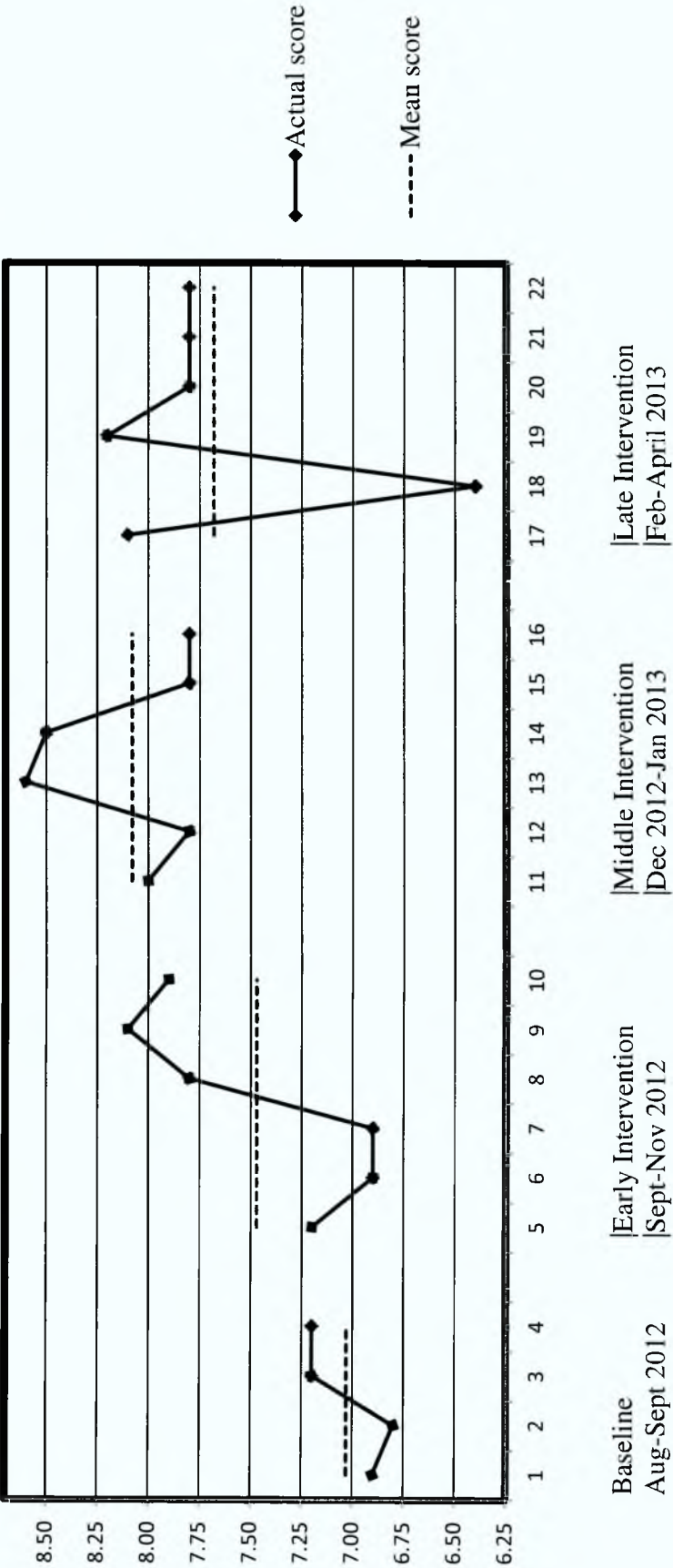


Figure 6.8 Mental Toughness Cognition scores for Referee B

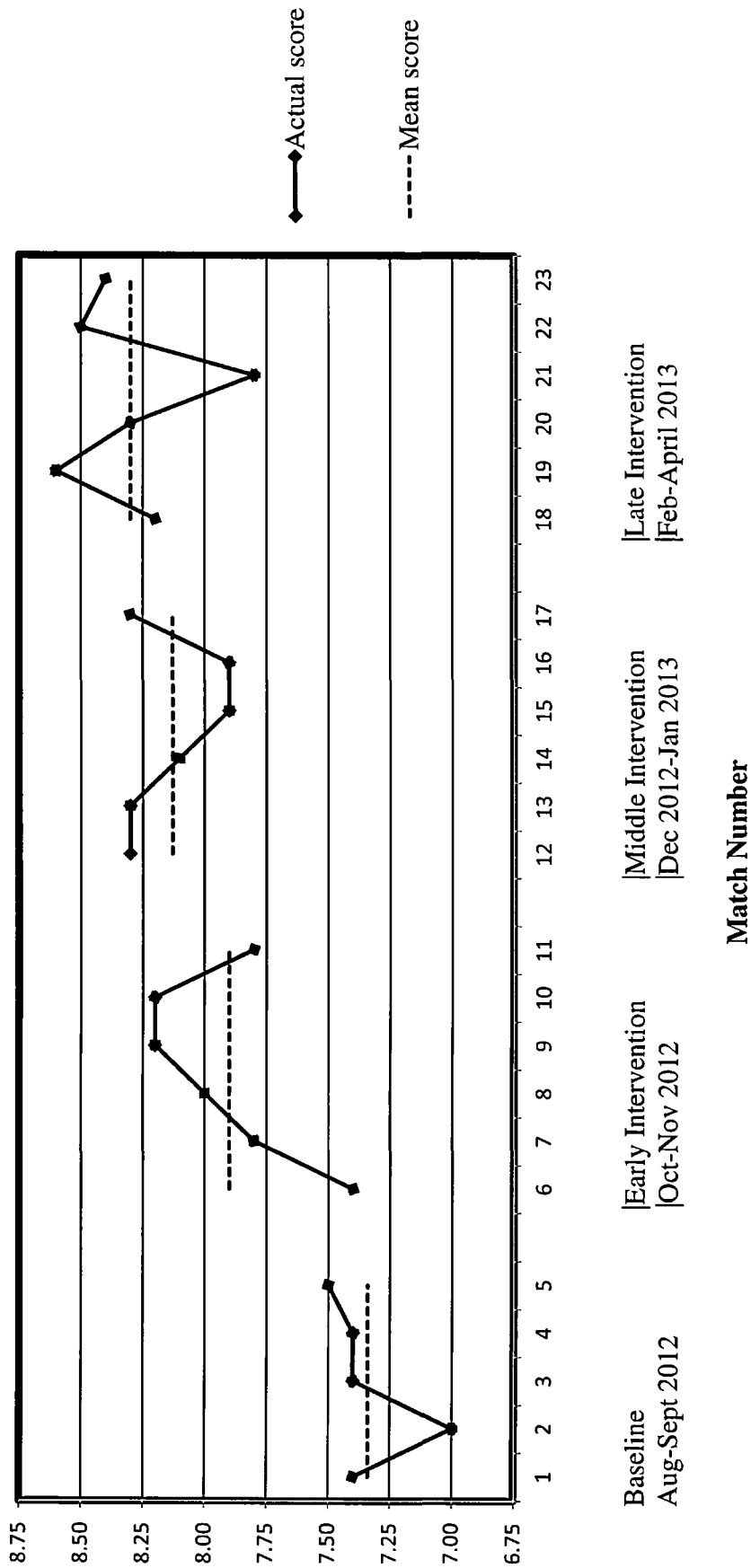


Figure 6.9 Mental Toughness cognition scores for Referee C

time to understanding the football teams and players they officiate at this level. For example, two out of the three EFL referees illustrate how they now take into account the defensive and attacking nature of both teams when devising their game-plans:

The workshops have highlighted the importance of covering all the bases before officiating, as if one stone is left unturned it is to someone else's gain. By researching into clubs styles, you will be aware that clubs make decisions for specific reasons, for example, formations, starting 11, substitutions, and style of football. We as officials need to be aware of why teams make these decisions and the implications that may arise from it. Thus, having game-plans in place so we can adapt our own game to move over the hurdle and onto the new challenges that we may face during the game is key. (Referee B)

I feel that my on-field performances have benefitted from my involvement within the project. I have focused on refereeing intelligence, specifically being a shrewd referee after completing my self-analysis scores after each game. This has involved me concentrating specifically on tactical awareness and game management to successfully adopt a lower profile whenever possible. This has been shown to have been successful so far in my excellent "club mark" scores, which have not always been as high in previous seasons. (Referee C)

#### **6.4.4.2.3 Building self and team confidence pre-match**

Confirming the findings of the pilot study, it was not a surprise that improved self-confidence as a football referee was highlighted in the social validation data. This finding has also been reflected in the aforementioned results (see Table 6.2). However, unique to this study was that the MTETP also enhanced levels of match-day team of officials' confidence. As a result, referees noted that throughout the MTETP they perceived themselves and their teams to be more confident in their abilities when undertaking their role-specific duties in football (i.e., referee, assistant referees, and fourth-official). For example, one referee highlights this enhanced level of team confidence prior to kick-off:

From the very first workshop, the programme provided further understanding on how pre-match preparation on the day is vitally important, so you get the best out of the officials you are working with and deliver the best performance possible. This is through having routines that are more or less identical each week, as it will breed confidence and will relax the team while keeping them focused on the task ahead. (Referee B)

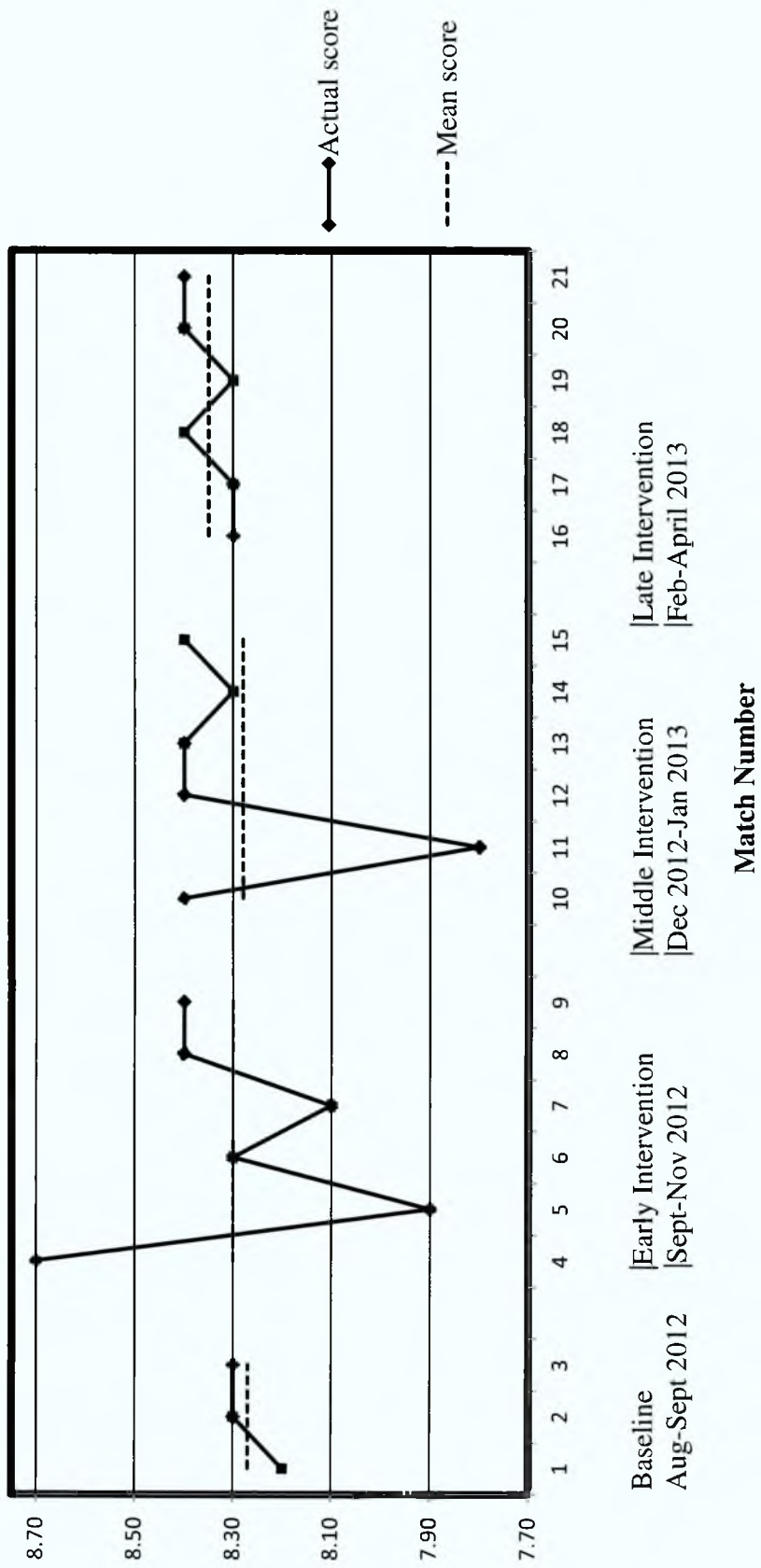


Figure 6.10 Match-day assessor performance scores for Referee A

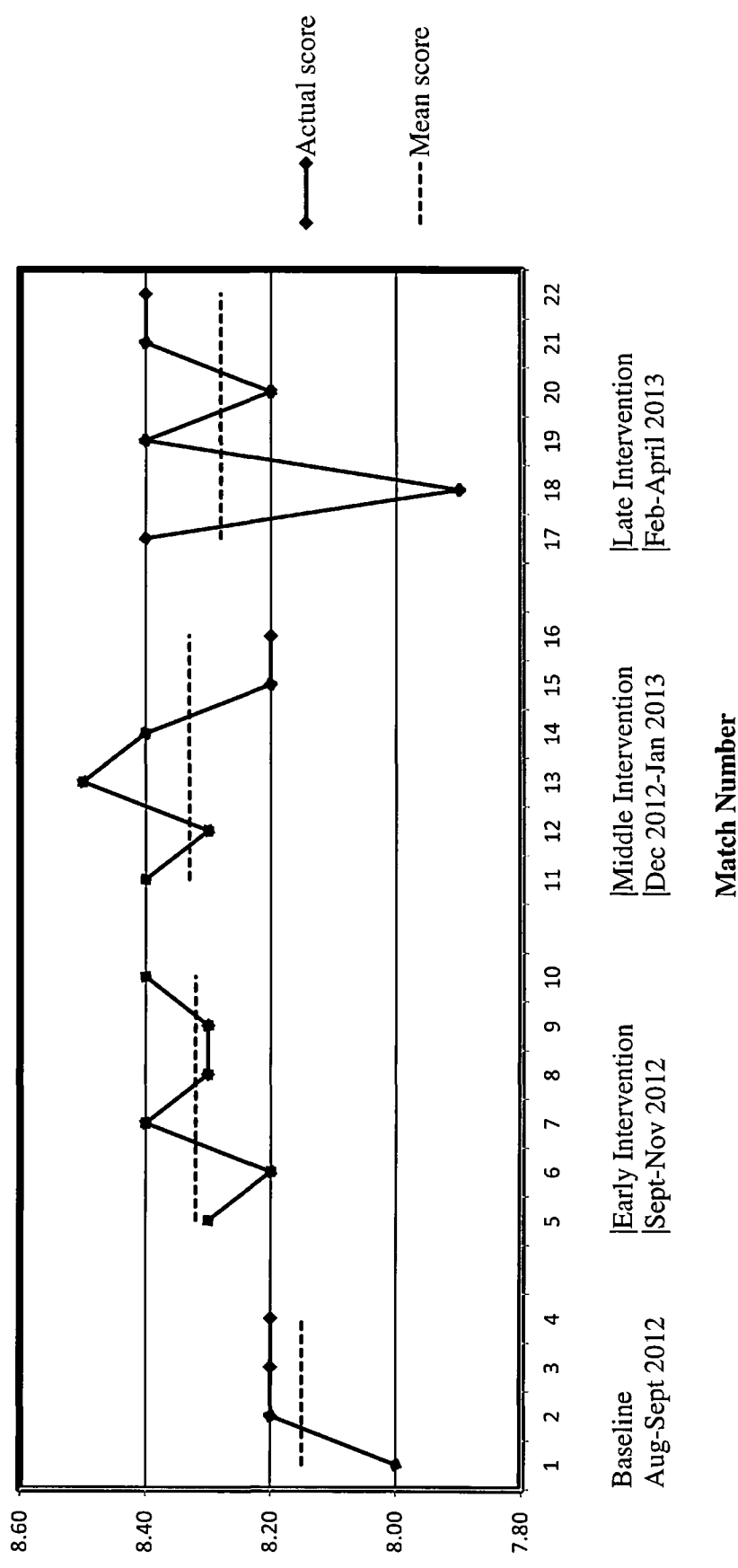


Figure 6.11 Match-day assessor performance scores for Referee B

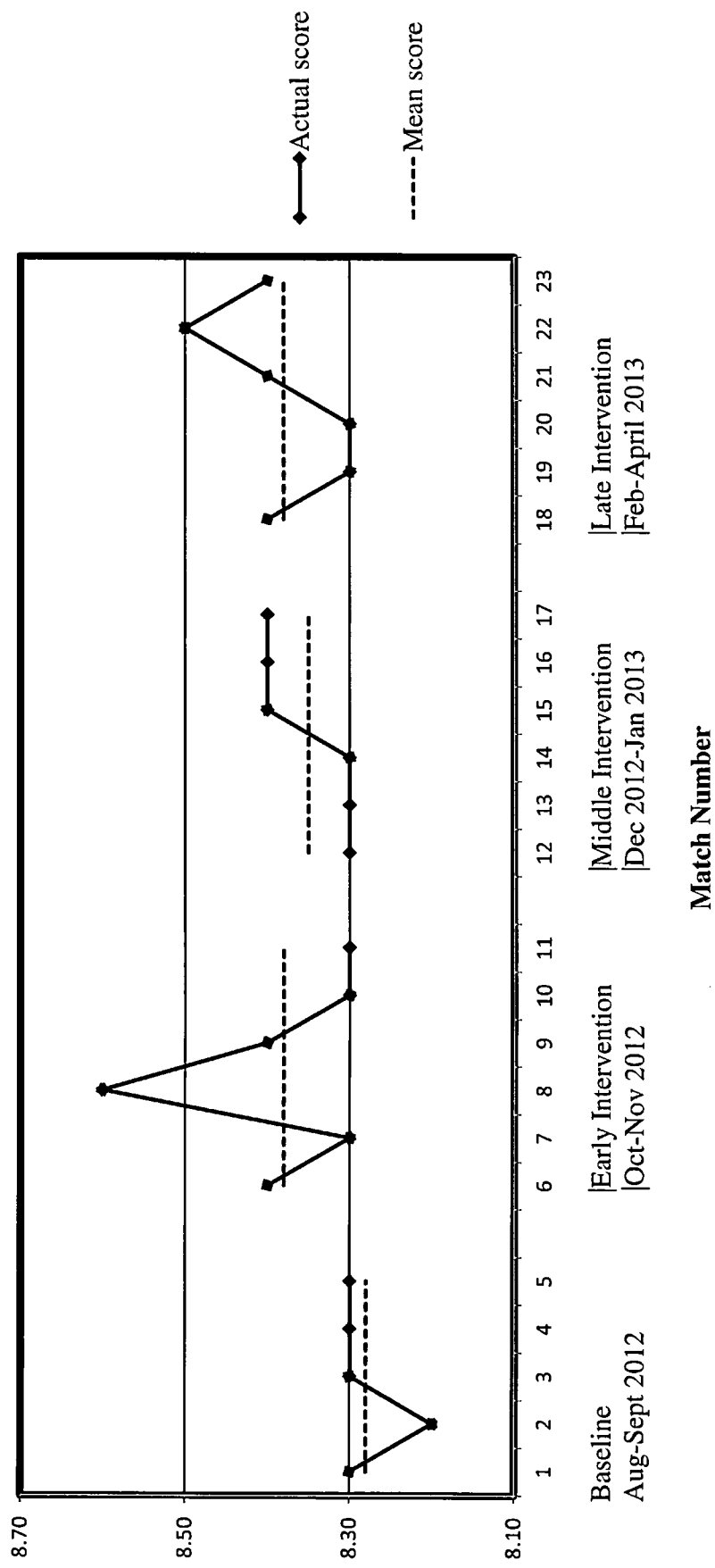


Figure 6.12 Match-day assessor performance scores for Referee C

#### **6.4.4.2.4 Refocusing during the half-time period of a match**

Finally, workshop four outlined various mentally tough cognitions associated with elite football refereeing. In doing so, the cognitive refocusing strategies offered within the MTETP highlighted the mechanics involved behind staying focused during competition. These strategies and subsequent impact were thoroughly discussed by all three referees. One referee highlighted the use of these strategies during the half-time period of a match in the following way:

To highlight a couple of refocusing strategies that have helped me since being involved in the MTETP are moving on from a decision and parking the decision up or picturing a bin, focusing with the use of my handkerchief, and seeing the bigger picture rather than one mistake. I definitely feel that I have moved on as a referee since the start of the season as these strategies have helped with my self-belief. At half-time it also gives the opportunity to refocus, self-analyse, and regroup as a team, this is important as you can't dwell on decisions as the next decision is the most important and shows how mentally tough an official and his team has to be. (Referee B)

#### **6.4.4.3 Future development of the MTETP**

Building upon the pilot study, additional SVQ feedback was provided in an effort to further enhance the MTETP. Central to this feedback, two factors appeared most prominent. The first factor was the applied nature of the MTETP and the second factor was the further development of on-field MT role-play training.

##### **6.4.4.3.1 The applied nature of the MTETP**

Although the design of this intervention was relatively workshop-based, all three referees and their coach suggested that not only should this continue throughout the course of next season (i.e., EFL 2013-2014 season), but also for the MT consultants involved to observe live performances when further developing MT components. For example:

To better analyse the benefits of the programme and to develop the performance levels of the referees, I feel that the programme should run for a minimum of two seasons. As a result, it would be better for the development of the referees and to better put the theoretical advice into practice if Mental Toughness consultants were able to attend games, possibly alongside the

referee's PGMO Coach. The greater the number of games observed, the greater the potential benefits to the referee. (Coach)

#### **6.4.4.3.2 Developing the on-field Mental Toughness training**

And finally, the on and off-field role-play training sessions were perceived to have a positive effect on the development of MT. However, referees also stipulated that they would have liked to have seen the format of workshop three amended slightly in a bid to maximise its effectiveness. As discussed in the following statement, this would then allow them to discuss the most prominent issues relating to the initial role-play exercise, and then repeat the same exercise to develop MT behaviours further:

Video a referee in a mentally tough set-play situation with a set limit of time of two minutes to see how they react in that environment. Once the time limit is up, the referee will accompany a sport psychology consultant where they both analyse the clip and identify areas of development. When this is completed the official goes back and officiates the same incident, to try and adapt his game for the better while possibly having to deal with new challenges and therefore having to use previous experiences to make the correct decisions and learning in a safe, positive environment. (Referee A)

### **6.5 Discussion**

The present study evaluated the effects of a long-term MTETP intervention on MT and performance in early career EFL referees. Previous research has found that MT components (i.e., attributes, behaviours, and cognitions) are an important factor perceived to underpin football officiating excellence (Slack et al., 2013; in press). Therefore, it is essential to examine ways to develop referee's MT and to determine if this is associated with positive performance outcomes. A unique element that underpinned the MTETP was the identification and inclusion of behavioural and cognitive MT components specific to elite football officiating (Slack et al., in press). Therefore, the MTETP allowed for an individualised intervention tailored for referees competing in modern-day, elite-level football. Taken together, the structural basis of



this programme has further enhanced the contextual and conceptual understanding of MT interventions over more traditional PST interventions in sport.

Building upon the pilot study, the results provide additional support for the effectiveness of a MTETP in English football officiating. Overall, all three referees and their coach reported positive changes in sport-general and referee-specific MT measures across the intervention phase compared to the baseline phase. This is an important finding given Hrycaiko and Martin (1996) advocated that greater levels of confidence can be placed in the effectiveness of an intervention when improvements are replicated across participants.

Further, when examining the performance scores, it was clear that noticeable improvements were made by all three referees. As such, these findings provide confirmation that the MTETP was beneficial in enhancing EFL refereeing performance. Explanations for the considerable improvements in performance might be based around the design of the MTETP tailored individually to each early career EFL referee. For example, the personal development and season long monitoring of MT behaviours and cognitions via high-pressurised role-play and video footage analysis might have increased the consistency of high level performance. Indeed, when visually inspecting referee-specific MT data across all intervention phases (i.e., early, middle, and late intervention), higher mean average differences in comparison to the baseline phase were evident at the late intervention phase (see Tables 6.4, 6.5, 6.6). From a conceptual standpoint, findings echo previous research suggesting that MT development is an enduring process (e.g., Connaughton et al., 2008; 2010; Gucciardi et al., 2009c; 2009d, but also highlight that this process incorporates a host of contemporary context-specific strategies (e.g., self and peer video clip performance analysis, simulation of post-match media interview). In providing an overview of the findings then, the MTETP has been beneficial to each referee and the coach, as well as MT research and consultancy.

Although clear improvements in most dependent variable measures across all referees is evident, on few occasions relatively low match-assessor performance scores were coupled with a decline in referee-specific MT cognitive ratings (see Figures 6.7 and 6.8). Therefore, it appears that over the course of a competitive EFL season, just like athletes, it is likely referees will, on isolated occurrences perform at sub-optimal levels. However, of particular interest is the drop in MT cognitions ratings during these sub-optimal performances. This raises an important issue within existing MT literature regarding the fluctuation of MT components in sport performers transitioning to the elite-level. Indeed, Jones et al. (2007) indicated that given its multidimensional nature, fluctuations in MT might occur in athletes during elite competition. Thus, MT is a psychological construct that once its components have been developed, might also need to be continually maintained and monitored. As this study targeted EFL referees during their progressive transition to the elite-level, further examining the specific match circumstances (e.g., exposure to several situations requiring MT, level/time/location of competition), and MT component ratings over forthcoming matches is vitally important for two reasons. Firstly, such knowledge will further enhance the contextual understanding of competition-type that might elicit MT impairment. Secondly, during times of MT impairment, it is important to understand what competitive conditions might also lead to further MT decline or MT enhancement. Taken together, this information will not only advance current research, but also provide guidance for MT consultants working with performers throughout this specific career transition.

One notable concern that might have influenced the nature of the findings is the effect other team of match-day officials had on performance outcomes (i.e., assistant referees and fourth-official). For example, when evaluating performance scores, it might have been the case that a key match incident was identified by a referee's assistant, and that decision was correctly/incorrectly sanctioned. As a result, such a circumstance could

then be positively or negatively marked by the match-day referee assessor depending on the outcome. Therefore, it might be of added value for future research to investigate the overall performance of the team of match-day officials in securing a more accurate measure of performance. In line with this, and given the unique role-specific duties within football officiating (Catteeuw, Helsen, Gilis, & Wagemans, 2009), MT research examining match-day officials beyond the referee (e.g., assistant referees, fourth-official) would further enhance the current conceptualisation of MT in this area (Slack et al., 2013; in press).

Throughout the course of the eight month intervention the social validation data also provided additional support for the effectiveness of the MTETP. Indeed, not only were there numerous positive factors reported within an EFL officiating context, but also from a coaching perspective as well. Building upon the pilot study, several factors relating to the MTETP's impact on MT and performance in early career EFL referees are deemed to be unique to the current MT literature (e.g., simulation of on and off-field mentally tough situations, enhanced post-match self-reflection, building team confidence pre-match). In particular, refocusing during half-time was thought to be a significant finding that extends MT research that acknowledges the need to understand the timing of competition when deploying specific MT cognitions (Slack et al., in press). Although this finding provides an initial insight, further research attention is warranted in this area.

### **6.5.1 Applied implications for Mental Toughness consultants**

The one-to-one workshops encouraged an open and honest training-ground climate for each referee to gain a critical insight into MT components. In particular, the nature of the workshops challenged referees to discuss and reflect not only upon MT behaviours and cognitions warranted at the EPL level, but also their applicability at the level at which each referee currently officiates. For the most part, the video footage within the workshops was taken from recent matches undertaken in the EFL 2012-2013

season. Subsequently, this allowed referees to evaluate their own matches and stimulate thorough discussions on the successful deployment of MT behaviours and cognitions in an effort to enhance performance levels. As a result, constant positive changes in MT behaviours and cognitions as well as performance have been reported in the findings across the intervention phase. This finding, therefore, addresses recent calls regarding the successful development of effective, performance-based officiating strategies (e.g., Gilis et al., 2009; Pizzera & Raab 2012). It is suggested that MT consultants might play an important role in the development and implementation of this video-based evaluation in future MT interventions. In line with this, consultants who attend matches and observe refereeing performances by getting a “feel of the game” might assist in this process. To this end, in an attempt to increase the amount of this visual-based learning, referees who specialise in their preferred roles early in their careers might benefit the most.

It was evident from the quantitative and social validation data that workshops five and six enhanced MT. These two workshops were conducted at the late intervention phase of the MTETP in which the highest mean average differences in the referee-specific MT measures were reported when compared to the baseline phase (see Tables 6.4, 6.5, 6.6). Specifically, these high-pressurised role-play exercises were environmentally engineered and facilitated a two-tiered reflective process that included self-reflection in action and group-reflection on action. This enabled referees to peer-review in detail about recent isolated on and off-field MT experiences. In particular, this strategic process allowed individuals to consult with fellow referees when examining video clips of their personal experiences and grasp relevant constructive criticism and/or developmental points from a peer, coach, and sport psychology perspective. These highly-pressurised, task-orientated activities characterised by promoting individual and group-orientated MT development might well set the current benchmark in the education, exposure, and evaluation of MT components in elite football officiating. It is considered

that education, exposure, and evaluation procedures are the three dimensions of MT development in sport. From an applied perspective, MT consultants should look to build upon these specific workshops and integrate them at several intervals throughout the EFL season in an effort to maximise their effectiveness. From a structural standpoint, scheduling these group-based workshops during early and middle intervention phases would provide a greater balance to the MTETP and raise any collective issues in which to further work on in subsequent individual workshops.

Finally, a notable emphasis was placed on the coaching benefits as a result of the MTETP. Therefore, when implementing long-term MT interventions, future MT programmes should look to inform coaches of the Attributes, Behaviours, and Cognitions of MT in football officiating (ABC's of MT). Indeed, existing MT research has highlighted the possible benefits of this specific initiative within an athletic context (Gucciardi et al., 2009c; 2009d). In particular, current research has stressed how important the coach's role is in the development of MT in sport performers (e.g., Driska et al., 2012; Gucciardi, Gordon, Dimmock, & Mallett, 2009; Weinberg et al., 2011). Thus, providing online MT modules and E-forums for coaches within referee MT programmes will likely prove to be a worthwhile endeavour. With this in mind, it is important that MT consultants establish links with referee coaches operating throughout all levels of the English football refereeing pyramid. Taken together, MT consultants could well assist in this overall process when devising such methods of MT education and training in English football officiating.

### **6.5.2 Limitations**

Two main limitations were apparent within this MT intervention. Firstly, the absence of a maintenance phase as adopted in similar research (e.g., Bell et al., 2009) makes it difficult to evaluate the extended effectiveness of the MTETP. Given this, future long-term MT interventions should look to attain retention data throughout the following

competitive EFL season in a bid to strengthen its effectiveness (e.g., an ABA single-subject design). In line with this, it is believed that more stringent social validation procedures across all intervention phases would have strengthened the overall evaluation of the MTETP. In accordance, one procedure would be to gain the participants responses by way of a focus-group format, which allows for the cross-fertilisation of experiences when determining the effectiveness of an intervention (Harwood, Drew, & Knight, 2010). However, due to time constraints this particular method could not be fulfilled.

Secondly, we acknowledge that there is no validated MT measure specific to football officiating. Consequently, this study implemented measures adopted from current MT findings in elite football officiating (Slack et al., 2013; in press). Therefore, further research is warranted to establish a psychometrically sound and practical MT measure specific to this sporting context. Following the recommendations set by Gucciardi et al. (2011), it is anticipated that a multi-measure approach via other-report, Likert, and semantic differential methods would further enhance the development of measuring MT in football officials.

## **6.6 Conclusion**

The purpose of study three was to evaluate the effectiveness of MT intervention in early career EFL referees. From a theoretical perspective, the findings of this intervention provided support for the effectiveness of the MTETP on MT development and performance enhancement. In doing so, it becomes one of few MT interventions within the literature to investigate MT in conjunction with objective performance outcomes. From an applied perspective, future guidelines for NGBs, coaches, and MT consultancy for the effective integration of MT education and training in elite football officiating is also presented. Taken together with the pilot study, the findings, while outlining several limitations, provide a solid foundation for future research to further develop a MTETP in the context of EFL refereeing.

## **Chapter VII**

### ***Summary, Discussion, and Conclusions***

#### **7.1 Introduction**

Chapter VII of this thesis comprises three sections. First, a summary section that provides details of the overall purposes of the thesis, and an outline of the key findings of the four studies contained within this thesis. Second, the discussion section highlights the theoretical and applied implications, the strengths and limitations of the thesis as a whole, and recommendations for future research in the area of football officiating excellence and MT in elite sport. The final section draws together the overall conclusions of the thesis.

#### **7.2 Summary**

Within sport psychology literature the concept of performance excellence has received extensive international attention. With athletes being the central focus, a comprehensive understanding of factors pertinent to elite sport performance is now evident (e.g., Greenleaf et al., 2001). In recent times, however, investigations have begun to examine other sporting personnel beyond elite professional athletes in an attempt to provide additional insight into performance excellence (e.g., Olusoga et al., 2010). Accordingly, emerging research has identified a range of factors contributing to officiating excellence within a variety of team invasion sports. Central to this research, a particular focus has been placed on understanding football officiating excellence (e.g., MacMahon et al., 2007; Mascarenhas et al., 2006). Although this literature has provided a starting point in identifying specific factors underpinning elite football officiating, limitations include participants not truly officiating in modern-day, elite-level competition (e.g., Lane et al., 2006), and research designs being prominently

experimental and laboratory-based (e.g., Gilis et al., 2006). As a result, little research has employed qualitative lines of enquiry when exploring potential new factors associated with elite professional football officials. To this end, the central purpose of this thesis was to investigate, in-depth, the perceptions of EPL referees to identify factors underpinning football officiating excellence. It is anticipated that based on the perceptions of these elite-level performers, the findings might inform the development of an effective programme to help in the support of officiating excellence as well as the development of future talent in English football refereeing.

The aim of study one was to provide an in-depth understanding of football officiating excellence in the context of EPL refereeing. Specifically, in this study, 15 Select Group referees were interviewed individually about their perceptions of factors underpinning officiating excellence. The findings of study one indicated that there was no single dominant factor underpinning football officiating excellence, rather a variety of physical (e.g., superior physical components), environmental (e.g., opportunities to thrive), social (e.g., support networks and services), and psychological factors (e.g., personal characteristics). Overall, while these findings did support previous sport officiating literature (e.g., Mascarenhas et al., 2005a), the unique factors found offered a step forward in characterising football officiating excellence (e.g., multifaceted pre-match preparation, performance-level enhancement). In particular, it was clear that EPL referees rely on various MT attributes (e.g., tough attitude, resilience, robust self-belief) to deal with the many demands in this elite football environment. Subsequently, this finding enabled a further study to examine MT in this area.

The purpose of study two was to gain a comprehensive understanding of MT in elite football officiating by interviewing the same 15 Select Group referees in study one. Central to this examination, this study explored competition-specific and off-field situations perceived to require MT in EPL refereeing, as well as the behaviours and



cognitions deployed by EPL referees in such situations. The findings revealed 70 situations requiring MT that converged into five higher-order themes: pre-match situations (e.g., manager and captain introductions), during-match situations (e.g., not dwelling on a contentious decision), post-match situations (e.g. written press criticising performance), general elite refereeing situations (e.g., projecting a professional image), and general-life situations (e.g., time spent away from family and friends). Throughout these situations, a multifunctional set of adaptive patterns of MT behaviours (e.g., looking calm and composed) and cognitions (e.g., draw upon life experiences) were outlined. Furthermore, this study identified corresponding behaviours and cognitions with MT attributes from study one (e.g., sport intelligence). Taken together, the present study provided a comprehensive conceptualisation of MT in elite football officiating. While results did support existing MT literature (e.g., Coulter et al., 2010), there were numerous findings perceived to be unique to elite football officiating. Consequently, recommendations for the development of MT in football officiating were offered, which together with findings from study one, highlighted the need for the design and implementation of a MT intervention.

The purpose of the pilot study was to evaluate the efficacy of a MTETP in English football officiating. As a result, this study examined an intervention designed to develop MT in investment English football referees. Six referees were assigned to either a MTETP group or a control group. The MTETP group participated in five, two-hour workshops over an eight week period. During this time, no MT education and training was provided to the control group. Results reported that the mean average scores of the MTETP group were higher throughout all six subscales and total MT scores of the MTQ-48 at the post-intervention phase than the control group. In addition, when inspecting the mean difference scores across pre and post-intervention measures, the MTETP group reported more positive changes than the control group.

In a bid to strengthen the evaluation of the intervention's effectiveness, referees' subjective responses to the MTETP by way of an open-ended SVQ were collected two months after the intervention. This social validation data acknowledged a host of factors related to the MTETP's impact on the development of MT (e.g., MT profiling, enhancing positive self-talk) and referee performance enhancement (e.g., parking-up mistakes during a match, not switching-off when making good decisions). In summary, this pilot study outlined the strengths and weakness of the current MTETP intervention and provided a good starting point for future research to develop a more robust MT intervention. As a result, this information led to study three of the thesis when informing the design of a season long MTETP aimed at enhancing MT and performance in EFL referees.

Slack et al.'s (2013; in press) research findings and those discussed in the pilot study provided the theoretical underpinnings of study three. As such, the purpose of study three was to evaluate the effectiveness of a long-term MTETP on three early career EFL referees. Early career EFL referees are a group of first and second year national list referees appointed by The FA to referee matches in the EFL. In essence, early career EFL referees were targeted because this transitional period in sport is understood to be a critical juncture that requires specific MT components (Slack et al., in press). Each referee participated in four one-to-one workshops and two group-based workshops designed to develop MT and enhance performance levels over the course of the entire 2012-2013 EFL season. The study employed a single-subject, multiple-baseline-across-participants design and consisted of a baseline phase and an intervention phase.

Building upon the pilot study, the results of study three provided additional support for the effectiveness of a MTETP in English football officiating. Overall, all three referees reported positive changes in sport-general and referee-specific MT ratings

across the intervention phase compared to the baseline phase. Further, when examining the match-assessor performance scores, it was clear that noticeable improvements were made by all three referees. As such, these findings provide confirmation that the MTETP was beneficial in enhancing EFL refereeing performance. Throughout the course of the eight month intervention the social validation data also provided additional support for the effectiveness of the MTETP. Not only were there numerous positive factors reported within an EFL officiating context (e.g., building team confidence pre-match), but also from a coaching perspective (e.g., enhanced referee-coach relationship) deemed to be unique to the current MT literature. Taken together, the findings outlined the effectiveness of a MTETP on MT development and performance enhancement in early career EFL referees and assists sport psychology consultants who endeavour to enhance MT in football officials.

### **7.3 Discussion**

The following section outlines the main theoretical and applied implications that have arisen from each study within the thesis. The major strengths and limitations of the thesis were discussed in detail, and avenues for future research are also considered.

#### **7.3.1 Theoretical implications**

##### **7.3.1.1 Factors Underpinning Football officiating excellence**

In an attempt to provide additional insight into performance excellence, sport psychology research has begun to examine performers beyond athletes such as sport officials. Accordingly, emerging research has identified a range of factors contributing to officiating excellence within a variety of team invasion sports (e.g., Dorsch & Paskevich, 2007; Mascarenhas et al., 2005a; Pizzera & Raab, 2012; Souchon et al., 2009). Central to this research, a particular focus has been placed on identifying factors underpinning football officiating excellence (e.g., Mascarenhas et al., 2006).

Importantly, the identification of unique factors within the first study of this thesis have certainly further enhanced the understanding of football officiating excellence.

#### **7.3.1.1.1 Role-Specific to Elite Football Referees**

Specifically, findings from within study one acknowledged factors that were not only specific to the sport, but also role-specific to referees operating within the EPL football environment. Of significant importance, this thesis addressed the limitations of existing elite football officiating research discussed in detail in Chapter II. To note, this literature has focused primarily on officials not truly officiating in modern-day, elite-level football competition (e.g., Lane et al., 2006), and research designs being prominently experimental and laboratory-based (e.g., Gilis et al., 2006). As a result, scant research has employed qualitative lines of enquiry when exploring potential new factors associated with elite professional football officials. In line with this, Mascarenhas et al. (2006) called for research with a greater focus on the on-field performance of elite football officials to identify the additional factors characterising excellence in this area. Consequently, the thesis bridged this gap in the literature by investigating the perceptions of EPL referees operating in one of the most successful sports leagues in modern-day sport competition (Noll, 2002). In doing so, the qualitative methods used for data collection (i.e., in-depth one-to-one interviews) in study one provided a unique insight into factors perceived to underpin football officiating excellence.

#### **7.3.1.1.2 Support for Previous Performance Excellence Research**

The results of study one offer additional support for previous athletic research, that the attainment of performance excellence is characterised by a constellation of physical, organisational, social, and psychological factors (e.g., Gould et al., 1999). Furthermore, findings echoed existing factors underpinning officiating excellence within various team invasion sports (e.g., Mascarenhas et al., 2005a; Mellick et al.,

2005). In particular, EPL referees implemented a host of verbal communication methods during competition and included the use of players and managers' language and addressing all personnel by first name or shirt number. The findings of this study also lend support to the role-specific duties of football officials on decision-making accuracy during elite competition (Catteeuw, Helsen, Gilis, & Wagemans, 2009).

#### **7.3.1.1.3 Demands of Modern-Day, High-Profile Football Competition**

In line with an athletic context (e.g., Gould et al., 2002, Jones et al., 2002), the identification of factors reported in study one was due, in part, to the demands of modern-day sport competition. As a result, it was clear that several factors were unique to EPL refereeing and suggest that these findings are specific to this high-profile football environment (e.g., Mental Toughness attributes). For example, EPL referees explained how effective non-verbal communication skills (e.g., actively listen to players), match-day officials' team cohesion (e.g., team-unity), and social support networks (e.g., parental support) were all perceived to be key factors underpinning football officiating excellence. To this end, the findings of the initial study have furthered the understanding of the factors perceived to be important in the performance of elite football officials. While findings support previous sport officiating literature, several factors have not been reported previously. This suggests that previous factors reported in the elite football officiating research were by no means complete in characterising officiating excellence.

#### **7.3.1.2 Conceptualisation of Mental Toughness in Elite Sport**

Unlike existing football officiating research the referees within the study one of the thesis emphasised psychological attributes consistently aligned to MT qualities identified in the literature. Notably, while these MT attributes did overlap with MT attributes reported in research with other sports (e.g., Jones et al., 2002; Gucciardi et al., 2008), findings also acknowledged attributes specific to elite football officiating. Indeed,

referees expressed having robust self-belief, which supports extant literature identifying and ranking self-belief as the most commonly cited MT attribute (Gucciardi et al., 2008; Jones et al., 2002; Thelwell et al., 2005). With mentally tough performers cited as being able to cope effectively with performance-related pressures (Bull et al., 2005; Jones et al., 2002), it was not a surprise that one MT attribute emerged relating to coping with pressure (e.g., coping with match-day pressures, consistent level of high-performance). The findings reported by Slack et al. (2013) demonstrate that MT attributes play an important role in football officiating excellence. Consequently, this enabled further research to examine MT and its development English football officiating.

To provide a suitable conceptual foundation in which to explore MT, a definition of MT (i.e., Coulter et al., 2010, pg. 715) was provided to all participants prior to the commencement of study two. In addition, a summary of the MT attributes generated from Slack et al.'s (2013) findings was also provided. It is important to note that a limitation concerning current MT literature is that it is still relatively representative of the athletic domain (e.g., Gucciardi et al., 2008). However, the research contained within this thesis has provided a comprehensive conceptualisation of MT in elite football officiating, becoming one of the few investigations within the MT literature to investigate sport performers outside of the athletes themselves.

### **7.3.1.2.1 Situations Requiring Mental Toughness in Elite Football**

#### **Refereeing**

Importantly, this thesis addressed the criticisms of the MT literature in detail in chapter II, and the recommendations set by Slack et al.'s (2013) research. Specifically, Slack et al. suggested that given the unique duties carried out by officials in comparison to athletes (e.g., accuracy of big decisions, building player-trust) by identifying situations requiring MT, it is anticipated that mentally tough referees might possess distinctive behaviours and cognitions as previously identified in athlete research (e.g.,

Coulter et al., 2010). Accordingly, the results of study two provided further support for current research indicating that elite athletes as well as officials within this sport perceive some common MT situations (Coulter et al., 2010), for example, physical training requirements, maintaining high standards of performance, and dealing with injury. However, it is important to note that there were numerous MT situations found to be role-specific to football refereeing during competition (e.g., game-changing decision, player vs. player altercation, manager confrontation at half-time). Overall, findings indicated that situations requiring MT are warranted throughout both active and non-active phases of EPL football. From a conceptual perspective, study two reported that while there appears to be shared situations requiring MT within this specific sport, there were also MT situations unique to the respective roles.

#### **7.3.1.2.2 Mental Toughness Behaviours and Cognitions**

As a consequence of the role-specific situations to require MT in elite football officiating, Slack et al.'s (2013) study reported a catalogue of original, multifunctional MT behaviours (e.g., make eye-contact with player/s) and cognitions (e.g., park-up/bin a decision) that extend the current literature. In particular, a key MT behaviour to emerge was that in the case of player vs. player altercations, EPL referees acted as a barrier between players that thwarted any physical conflict that might have arisen, thus, there appears to be an effective conflict management component of MT.

#### **7.3.1.2.3 Temporal and Universal Nature of Mental Toughness and its components**

The inclusion of the elite football officiating perspective is believed to make a number of important contributions to the progressive scientific study of MT in sport. Firstly, the identification of an extensive list of competition-specific and off-field situations that require MT at the elite-level is believed to be a key addition. From a competition-specific standpoint, study two extended Bull et al.'s (2005) findings when

outlining the determinants of chronic MT by reporting numerous thrive (e.g., team of match-day officials' briefing) and survive-orientated situations (e.g., negative comments from TV pundits) requiring MT during an entire match-day appointment. From an off-field standpoint, a wide range of professional, individual, and familial issues from within and away from EPL refereeing required MT. Notably, officials highlighted that transitioning to elite and international-level football were considered critical situations. Thus, the nature of these transitions supported previous research conceptualising sport transitions not only as detrimental experiences but also situations that are challenging and career-leveraging (e.g., Bruner et al., 2008). In addition, findings provided further support for Connaughton et al.'s (2008; 2010) work when highlighting numerous life-orientated MT situations encountered by performers that effectively transfer to elite sport (e.g., mass-player confrontation). Taken together, these findings expand current literature conceptualising the "state-specific" nature of situations requiring MT as an elite sport performer (e.g., Coulter et al., 2010; Gucciardi et al., 2008).

Secondly, study two provided a sequential approach as to the association of previously generated MT attributes (Slack et al., 2013) with behaviours and cognitions deployed by EPL referees. As a result, this approach advances existing research (e.g., Jones et al., 2007) by outlining the temporal and universal utilisation of MT components (i.e., attributes, behaviours, and cognitions) during competition-specific and off-field situations. In accordance, this has provided a starting point into understanding the linkage between specific MT attributes (e.g., sport intelligence), behaviours (awareness of players' emotions), and cognitions (e.g., awareness of players' emotions) throughout situations requiring MT (e.g., during-match situations). This information further enhances the understanding of when and in what form specific MT components warrant the utmost consideration in the development of MT in sport.



Finally, the findings from the thesis broaden the breadth and depth of existing literature by comprehensively conceptualising MT in elite football officiating. Thus, study one and two not only provide a strong foundation for designing effective interventions aimed at developing MT and enhancing performance, but also offer a number of applied implications for NGBs, coaches, and sport psychology consultants in facilitating referee development.

### **7.3.2 Applied implications**

This thesis has raised important implications for NGBs, coaches, and sport psychology consultants operating in elite football officiating. In particular, this is highly significant for sport psychology consultants to tailor their knowledge in being fully equipped to deal with alternative elite performers, such as football officials.

#### **7.3.2.1 Mental Toughness education and development of football officials**

The results of studies one and two indicate that MT components (i.e., attributes, behaviours, and cognitions) play an important role in the pursuit of football officiating excellence. Indeed, the demanding nature of the EPL refereeing environment has been well established in this thesis. Based on the findings from the first two studies, one of the major recommendations of the thesis is that sport psychology consultants designing effective referee programmes should carefully consider the development of MT components. Along these lines, educating English football officials about the MT components cited by EPL referees might be one effective strategy. In doing so, structuring and implementing challenging, group-orientated, training-ground strategies throughout the developmental-pathway is encouraged. For example, by way of role-play, simulating competition-specific (e.g., mass-player confrontation, written press criticising performance) and off-field situations (e.g., physical training requirements) to demand MT might be one worthwhile procedure. Study three of this thesis has certainly

provided a starting point in implementing such strategies in a bid to develop MT components in English football officials.

### **7.3.2.2 Mental Toughness and football officiating transitions**

Study two of the thesis in particular highlighted that the transition to the EPL environment was a notable situation requiring MT. Supporting previous MT findings (Connaughton et al., 2010), this particular transition would appear to be an appropriate juncture for sport performers to develop MT. Therefore, sport psychology consultants might well play a significant role with regards to the development and implementation of MT behaviours (e.g., image management) and cognitions (e.g., confidence in own ability) when devising a smooth transition for referees to the elite-level. Firstly, by identifying particular pre, during, and post-match situations to require MT (e.g., manager and captain introductions), this offers consultants the opportunity to observe MT behaviours throughout competition (e.g., looking calm and composed). Secondly, awareness training of MT components during performance via the use of video analysis and profiling strategies (e.g., Butler & Hardy, 1992) would allow a multi-source evaluation. Taken together, this enables the potential for sport psychology consultants to detect these MT components or lack of when attempting to assist referees throughout this specific officiating transition.

### **7.3.2.3 Mental Toughness interventions in elite sport**

Based on the results and recommendations of studies one and two, the pilot study and study three evaluated the effectiveness of a MT intervention in English football officiating. Taken together, the findings outlined the effectiveness of a MTETP on MT development and performance enhancement. Consequently, this provided consultants working within the area of MT and its development with a series of implications for applied practice. Firstly, when devising a MT intervention in elite sport, the scheduling of such a programme should operate throughout all phases of the

sporting calendar. This coincides with previous research suggesting that the development of MT is a long-term process (e.g., Gucciardi et al., 2009c; 2009d). Secondly, the highly-pressurised, task-orientated MTETP activities characterised by promoting individual and group-orientated MT development might well set the current benchmark in the education, exposure, and evaluation of MT components in elite football officiating. Therefore, MT consultants should look to build upon these specific workshops and integrate them at several intervals throughout the EFL season in an effort to maximise their effectiveness.

#### **7.3.2.4 Mental Toughness and coach education**

Finally, it is also important to consider the applied implications that the findings of this thesis have on NGBs and coaches operating in elite football officiating. Firstly, NGBs should be made aware of the effective strategies that might facilitate performance excellence and effective referee development. As such, results from study one reported that EPL referees received social support from a host of sporting and non-sporting personnel. Therefore, when employing referee development programmes and formalising the mentoring process, educating these key individuals of the specific forms of effective and ineffective social support is a necessary component. Indeed, previous research has highlighted the potential psychological benefits of this particular initiative within an athletic context (Gould et al., 2002). Furthermore, contained within these programmes, developing English referees should become increasingly familiar and be exposed to similar environmental conditions as those experienced by EPL referees (e.g., exposure to elite-level match-day pressures, international experience) in a bid to develop MT. Secondly, a notable emphasis was placed on family welfare and coaching benefits from within study two and study three respectively. Thus, when implementing long-term MT interventions, future programmes should look to inform coaches and significant others of MT in football officiating (e.g., ABC's of MT in elite football

officiating). Indeed, existing MT research has highlighted the possible benefits of this specific initiative within an athletic context (Gucciardi et al., 2009c; 2009d). In doing so, providing online MT modules and E-forums to these individuals within referee MT programmes will likely prove to be a worthwhile endeavour. Taken together, MT consultants could well assist in this process when devising such methods of MT education and training.

### **7.3.3. Strengths of the Ph.D. thesis**

A strength of this thesis was the sample of elite football officials investigated. In particular, the sample of referees from studies one and two perform in one of the most competitive and globally-exposed football leagues in the world (Noll, 2002). Indeed, given the prospective design of these two studies, the 12 active participants within the sample corresponded to 75% of the total number currently officiating within the EPL. Consequently, by gaining the perceptions of these individuals it is believed that potential methodological limitations (e.g., memory bias) associated with retrospective studies (Brewer et al., 2011) were alleviated. Thus, gaining in-depth accounts from EPL referees offering a unique insight into factors underpinning football officiating excellence was unquestionably, one of the major strengths of the thesis as a whole. Indeed, elite football officiating research had been limited to officials not truly performing in modern-day, elite-level competition. An additional strength was the progressive theory into practice nature of the four studies contained within the thesis. The overall aim of the thesis was to identify factors perceived to underpin football officiating excellence. This process, in turn, directed the research to examine MT and its development in elite football officiating. It is believed that bridging the gap between theory and practice was successfully achieved. This approach has not only helped to fulfil the purposes of the thesis, but also has allowed an improved conceptual and applied understanding of MT and its development in elite sport.

In addition, it is also believed that the holistic research methods employed could well be considered a major strength of this thesis. It is important to note, the existing elite football officiating research it is still very much aligned with quantitative, laboratory-based investigations (e.g., Gilis et al., 2006). Specifically, three types of method were used: studies one and two adopted qualitative methods, using semi-structured interviews as a method for data collection, the pilot study used an experimental group/control group pre-test/post-test design, and study three adopted a single-subject, multiple-baseline-across-participants design. In accordance, the breadth and depth of qualitative data generated from studies one and two allowed for the collection of rich data which gave an in-depth insight into factors underpinning football officiating excellence.

Finally, study three adopted single-subject methods to investigate MT development and performance in EFL officiating. Specifically, this single-subject design allowed for an individualised MT intervention tailored for referees competing in modern-day, elite-level football. In doing so, this investigation enabled the discovery of subtle positive MT behaviours and cognitions improvements, as well as performance changes in individuals that might go undetected in nomothetic, group-based designs. Supplementing this, study three provides a theoretically sound and applied MTETP to assist sport psychology consultants in further facilitating performance excellence and effective referee development. Indeed, the identification and inclusion of specific behavioural and cognitive MT components within the MTETP is believed to be the structural underpinning that distinguishes MT interventions over more traditional PST programmes. Therefore, this MTETP has important implications for the way sport psychology consultants work when developing MT components in elite sport performers. Taken together, this thesis has certainly extended the literature surrounding football officiating excellence and MT in elite sport.

### **7.3.4 Limitations of the Ph.D. thesis**

It is important to note that the elite football officials (i.e., EPL referees) investigated in studies one and two might well be considered a limitation of the thesis. Given that there are gender and cultural differences in athletes prevalent throughout world sport, there are likely to be similar differences in officials. As a result, the findings of study one, might not generalise to elite referees, umpires, or officials participating in other similar team invasion sports. Also, given that there are role-specific variations of MT within football, there are likely to be similar differences in other sport officiating domains. Therefore, a limitation of the second study is the generalisability of the findings to elite referees operating in similar sporting codes whereby MT might also be important (e.g., NBA, NFL, Italian Serie A, US WNSL; FIFA international refereeing).

Another limiting factor concerns the design and implementation of the MT intervention within both the pilot study and study three. Firstly, it is evident that given the low sample size of participants in the pilot study, the meaningfulness of results should be viewed with caution. Unfortunately, this was an unavoidable limitation due to the lack of availability of investment English football referees in the Sheffield and Hallamshire area. However, it must also be remembered that the real-world implications for referees in response to the SVQ should also be considered just as important as the statistical data reported.

Secondly, the absence of a maintenance phase as adopted in similar research (e.g., Bell et al., 2009) makes it difficult to evaluate the extended effectiveness of the MTETP in study three. Given this, future long-term MT interventions of this nature, should look to attain retention data throughout the following competitive EFL season in a bid to strengthen its effectiveness (e.g., an ABA single-subject design). In line with this, it is believed that more stringent post-intervention social validation measures could

have been adopted when strengthening the overall evaluation of the MTETP. In accordance, one measure might be to gain the participants responses by way of a focus-group format, which allows for the cross-fertilisation of experiences when determining the effectiveness of an intervention (Harwood et al., 2010). However, due to time constraints this particular method could not be fulfilled in study three.

Finally, we acknowledge that there is no validated MT measure specific to football officiating. Consequently, study three implemented measures adapted from current MT findings in elite football officiating (Slack et al., 2013; in press). Following the recommendations set by Gucciardi et al. (2011), it is anticipated that a multi-measure approach via other-report, Likert, and semantic differential methods would further enhance the progressive measurement of MT in football officials.

### **7.3.5 Recommendations for future research**

There are three main avenues identified in this thesis that require further research. Firstly, although this thesis acknowledged factors that were not only specific to the sport, but also role-specific to referees operating within the EPL, there is still a need for further investigations in this area. Given the challenging duties undertaken by EPL referees, triangulating the findings across a sample of EPL football managers, players, and/or referee coaches would further enhance the understanding of football officiating excellence in this context. In line with this, identifying the support networks that assist and/or impede performance throughout EPL referees' formative years might also prove a beneficial line of future research. In addition, match-day officials' team cohesion (i.e., referee, assistant referees, and fourth-official) was perceived to contribute positively to a shared vision of on-field duties. Thus, additional research is warranted to determine the effects of EPL match-day officials' team cohesion, task familiarity, and role clarity on objective performance measures (e.g., decision-making and accuracy).

Secondly, although this thesis has further enhanced understanding of MT and its development in elite sport, there are still a number of issues that sport psychology researchers might want to pursue. In an effort to heighten the conceptualisation and development of MT, additional investigations might include examining MT in performers' team members (e.g., assistant referees) and significant others (e.g., spouse), characterise the opposite of MT components throughout situations requiring MT, the relationship between MT components and emotional factors (e.g., emotional contagion, Emotional Intelligence, emotional labelling, emotional anchoring), and the transfer of MT components in both sport, professional, and life domains. In particular, while there are unique elements specific to elite football officiating, the transferability and impact of these findings might have implications for future MT research and practice in broader populations (e.g., business executives, airline pilots, surgeons, military service members, fire fighters, police officers).

Thirdly, further research is needed to evaluate the effectiveness of a MTETP on MT development and performance enhancement in English football officiating. While the results from study three provide a strong foundation to build upon, several revisions are needed in order to make the intervention as robust as possible. It is important to note, the MTETP did intend to recruit a female sample, but given extenuating circumstances this was not possible during the recruitment stage of the pilot study and study three. Therefore, one revision would be to include a female population in future MT interventions. In addition, more stringent social validation procedures throughout all intervention phases would have strengthened the evaluation of the effectiveness of the MTETP. Further, study three implemented measures adapted from current MT findings in elite football officiating (Slack et al., 2013; in press). Thus, further measurement research is warranted to establish a psychometrically sound MT inventory that evaluates the statistical and practical adequacy specific to elite football officiating.



## 7.4 Conclusions

The overall purpose of the thesis was to identify factors underpinning football officiating excellence. As a result, this thesis provided an in-depth study into understanding MT and its development within elite football officiating. A secondary purpose was to use the findings of studies one and two contained within the thesis to bridge the gap between theory and applied practice by providing recommendations for football officiating NGBs, sport psychology consultants, and developing a programme aimed at facilitating officiating excellence and enhancing effective referee development. The pilot study and study three of the thesis have certainly addressed these major purposes. Taking the pilot study and study three together, the findings outlined the effectiveness of a MTETP on MT development and performance enhancement, thus, providing a good starting point for future research to develop a more robust MT intervention in this context. From a theoretical perspective, the findings of this thesis provided a detailed insight into the specific factors underpinning football officiating excellence. In doing so, a comprehensive conceptualisation of MT and its development in the context EPL refereeing was achieved. From an applied perspective, future guidelines for NGBs, coaches, and sport psychology consultancy for the effective integration of MT education and training in elite football officiating were presented.

## References

- Alderman, R. B. (1974). *Psychological behaviour in sport*. Toronto, Canada: W. B. Saunders Company.
- Anderson, M. B. (2011). Who's mental, who's tough and who's both? Mutton constructs dressed up as lamb. In D. F. Gucciardi & S. Gordon (Eds.), *Mental toughness in sport: Developments in theory and research* (pp. 69-88). Abingdon, Oxon: Routledge.
- Anderson, M., Wolfson, S., Neave, N., & Moss, M. (2012). Perspectives on the home advantage: A comparison of football players, fans and referees. *Psychology of Sport and Exercise*, 13, 311-316.
- Baker, J., Cote, J., & Deakin, J. (2005). Expertise in ultra-endurance triathletes early sport involvement, training structure, and the theory of deliberate practice. *Journal of Applied Sport Psychology*, 17, 64-78.
- Balch, M. J., & Scott, D. (2007). Contrary to popular belief, referees are people too! Personality and perceptions of officials. *Journal of Sport Behavior*, 30, 3-20.
- Barker, J. B., & Jones, M. V. (2008). The effects of hypnosis on self-efficacy, affect, and sport performance: A case study from professional English soccer. *Journal of Clinical Sport Psychology*, 2, 127-147.
- Barker, J. B., McCarthey, P., Jones, M. V., & Moran, A. (2011). *Single-case research methods in sport and exercise psychology*. Abingdon, Oxon: Routledge.
- Barker, J. B., Mellalieu, S. D., McCarthey, P., Jones, M. V., & Moran, A. (2013). A review of single-case research in sport psychology 1997–2012: Research trends and future directions. *Journal of Applied Sport Psychology*, 25, 4-32.
- Battle, R., Bull, A., Hawkins, M., Hearne, S., Parkes, R. & Thorpe, A. (2011). *Deloitte football money league 2011*. Retrieved December 5, 2011, from <http://www.deloitte.com/assets/Dcom->

- Beauchamp, M. K., Harvey, R. H., & Beauchamp, P. H. (2012). An integrated biofeedback and psychological skills training program for Canada's Olympic short-track speedskating team. *Journal of Clinical Sport Psychology*, 6, 67-84
- Bell, R. J., Skinner, C. H., & Fisher, L. A. (2009). Decreasing putting yips in accomplished golfers via solution-focused guided imagery: A single-subject design. *Journal of Applied Sport Psychology*, 21, 1-14.
- Bell, R. J., Skinner, C. H., & Halbrook, M. K. (2011). Solution-focused guided imagery as an intervention for golfers with the yips. *Journal of Imagery Research in Sport and Physical Activity*, 6, 1.
- Beretvas, S. N., & Chung, H. (2008). A review of single-subject design meta-analyses: Methodological issues and practice. *Evidence-Based Communication Assessment and Intervention*, 2, 129-141.
- Bloom, B. S. (1985). *Developing talent in young people*. New York, NY: Ballantine.
- Boyko, R., Boyko, A., & Boyko, M. (2007). Referee bias contributes to home advantage in English Premiership football. *Journal of Sports Sciences*, 25, 1185-1194.
- Brand, R., Schmidt, G., & Schneeloch, Y. (2006). Sequential effects in elite basketball referees' foul decisions: An experimental study on the concept of game management. *Journal of Sport and Exercise Psychology*, 28, 93-99.
- Brewer, B., Vose, J., Van Raalte, J., & Petitpas, A. (2011). Metaqualitative reflections in sport and exercise psychology. *Qualitative Research in Sport, Exercise and Health*, 3, 329-334.
- Bruner, M. W., Munroe-Chandler, K. J., & Spink, K. S. (2008). Entry into elite sport: A preliminary investigation into the transition experiences of rookie athletes. *Journal of Applied Sport Psychology*, 20, 236-252.

- Bull, Albinson, & Shambrook, (1996). *The mental game plan: Getting psyched for sport*. Eastbourne, England: Sport Dynamics.
- Bull, S. J., Shambrook, C. J., James, W., & Brooks, J. E. (2005). Towards an understanding of mental toughness in elite English cricketers. *Journal of Applied Sport Psychology*, 17, 209–227.
- Butler, R. J., & Hardy, L. (1992). The performance profile: Theory and application. *The Sport Psychologist*, 6, 253-264.
- Butt, J., Weinberg, R., & Culp, B. (2010). Exploring mental toughness in NCAA athletes. *Journal of Intercollegiate Sport*, 3, 316-332.
- Callow, N., Hardy, L. & Hall, C. (2001). The effect of a motivational-mastery imagery intervention on the confidence of high-level badminton players. *Research Quarterly for Exercise and Sport*, 72, 389-400.
- Campbell, D. (2005). I'm off! The Guardian. Retrieved July 23, 2011, from <http://www.guardian.co.uk/uk/2005/mar/13/football.deniscampbell>.
- Carron, A. V., Bray, S. R., & Eys, M. A. (2002). Team cohesion and team success. *Journal of Sports Sciences*, 20, 119-126.
- Carter, A. D., & Bloom, G. A. (2009). Coaching knowledge and success: Going beyond athletic experiences. *Journal of Sport Behavior*, 32, 419-437.
- Castagna, C., Abt, G., & D'Ottavio, S. (2007). Physiological aspects of soccer refereeing performance and training. *Sports Medicine*, 37, 625-646.
- Castagna, C., Abt, G., D'Ottavio, S. & Weston, M. (2005). Age-related effects on fitness performance in elite-level soccer referees. *Journal of Strength and Conditioning Research*, 19, 785-790.
- Catteeuw, P., Gilis, B., Garcia-Aranda, J.-M., Tresaco, F., Wagemans, J., & Helsen, W. (2010a). Offside decision making in the 2002 and 2006 FIFA World Cups. *Journal of Sports Sciences*, 28, 1027-1032.

- Catteeuw, P., Gilis, B., Wagemans, J., & Helsen, W. F. (2010). Offside decision making of assistant referees in the English Premier League: Impact of physical and perceptual-cognitive factors on match performance. *Journal of Sports Sciences*, 28, 471-481.
- Catteeuw, P., Helsen, W., Gilis, B., Van Roie, E. & Wagemans, J. (2009). Visual scan patterns and decision-making skills of association football assistant referees in offside decisions. *Journal of Sport & Exercise Psychology*, 31, 786-797.
- Catteeuw, P., Helsen, W., Gilis, B., & Wagemans, J. (2009). Decision-making skills, role specificity, and deliberate practice in association football refereeing. *Journal of Sport Sciences*, 27, 1125-1136.
- Cattell, R. B. (1957). *Personality and motivation structure and measurement*. New York: Harcourt, Brace, and World.
- Cherulnik, P. D. (2001). *Methods for behavioural research: A systematic approach*. London, England: Sage.
- Clegg, R., & Thompson, W. (1993). *Modern sports officiating: A practical guide*. Dubuque, IA: WBC Brown and Benchmark.
- Clough, P., Earle, K., Perry, J. L., & Crust, L. (2012). Comment on “Progressing measurement in mental toughness: A case example of the Mental Toughness Questionnaire 48” by Gucciardi, Hanton, and Mallett (2012). *Sport, Exercise, and Performance Psychology*, 1, 283-287.
- Clough, P., Earle, K., & Sewell, D. (2002). Mental toughness: The concept and its measurement. In I. Cockerill (Eds.), *Solutions in sport psychology* (pp. 32-45). London, UK: Thomson.
- Connaughton, D., & Hanton, S. (2009). Mental toughness in sport: Conceptual and practical issues. In S.D. Mellalieu & S. Hanton (Eds.), *Advances in Applied Sport Psychology: A review* (pp. 317-346). London, UK: Routledge.

- Connaughton, D., Hanton, S., & Jones, G. (2010). The development and maintenance of mental toughness in World's best performers. *The Sport Psychologist*, 24, 168-193.
- Connaughton, D., Hanton, S., Jones, G., & Wadey, R. (2008). Mental toughness research: Key issues in the area. *International Journal of Sport Psychology*, 39, 192-204.
- Connaughton, D., Thelwell, R. C., & Hanton, S. (2011). Mental toughness development: Issues, practical implications, and future directions. In D. F. Gucciardi & S. Gordon (Eds.), *Mental toughness in sport: Developments in theory and research* (pp. 135-162). Abingdon, Oxon: Routledge.
- Connaughton, D., Wadey, R., Hanton, S., & Jones, G. (2008). The development and maintenance of mental toughness: Perceptions of elite performers. *Journal of Sports Sciences*, 26, 83-95.
- Cote, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist*, 13, 395-417.
- Côté, J., Baker, J., & Abernethy, B. (2007). Practice to play in the development of sport expertise. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (pp. 184-202). Hoboken, NJ: Wiley.
- Cote, J., Salmela, J. H., Trudel, P., Baria, A., & Russell, S. J. (1995). The coaching model: A grounded assessment of expertise gymnastic coaches' knowledge. *Journal of Sport & Exercise Psychology*, 17, 1-17.
- Coulter, T. J., Mallett, C. J., & Gucciardi, D. F. (2010). Understanding mental toughness in Australian soccer: Perceptions of players, parents, and coaches. *Journal of Sports Sciences*, 28, 699-716.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. London, New Delhi, Thousand Oaks: Sage.

- Crust, L. (2007). Mental toughness in sport: A review. *International Journal of Sport and Exercise Psychology*, 5, 270-290.
- Crust, L. (2008). A review and conceptual re-examination of mental toughness: Implications for future researchers. *Personality and Individual Differences*, 45, 576-583.
- Crust, L. (2009). The relationship between mental toughness and affect intensity. *Personality and Individual Differences*, 47, 959-963.
- Crust, L., & Azadi, K. (2009). Leadership preferences of mentally tough athletes. *Personality and Individual Differences*, 47, 326-330.
- Crust, L., & Azadi, K. (2010). Mental toughness and athletes' use of psychological strategies. *European Journal of Sport Science*, 10, 43-51.
- Crust, L., & Clough, P. J. (2005). Relationship between mental toughness and physical endurance. *Perceptual and Motor Skills*, 100, 192-194.
- Crust, L., & Clough, P. J. (2011). Developing mental toughness: From research to practice. *Journal of Sport Psychology in Action*, 2, 21-32.
- Crust, L., & Keegan, R. (2010). Mental toughness and attitudes to risk-taking. *Personality and Individual Differences*, 49, 164-168.
- Crust, L., Nesti, M., & Bond, K. (2010). Mental toughness and coping in an ultra-endurance event. *Athletic Insight*, 2, 35-54.
- Crust, L., Nesti, M., & Littlewood, M. (2010a). A cross-sectional analysis of mental toughness in a professional football academy. *Athletic Insight: The Online Journal of Sport Psychology*, 2.
- Crust, L., Nesti, M., & Littlewood, M. (2010b). Player and coach ratings of mental toughness in an elite association football academy. *Athletic Insight: The Online Journal of Sport Psychology*, 2.

- Crust, L., & Swann, C. (2011). Comparing two measures of mental toughness. *Personality and Individual Differences*, 50, 217-221.
- Csikszentmihalyi, M., Rathunde, K., Whalen, S., & Wong, M. (1993). *Talented teenagers: The roots of success and failure*. New York, NY: Cambridge University Press.
- Denzin, N. K. (2009). *Qualitative inquiry under fire: Toward a new paradigm dialogue*. Walnut Creek, CA: Left Coast Press.
- Dickson, S. (2002). Investigating competencies for officiating: Soccer - A case study. In W. Spink (Eds.), *Science and football IV* (pp. 411-416). London, England: Routledge.
- Dieffenbach, K. D., & Statler, T. A. (2012). More similar than different: The psychological environment of Paralympic sport. *Journal of Sport Psychology in Action*, 3, 109-118.
- Dorsch, K. D., & Lawrence, D. (2011). The road to elite ice hockey officiating. *Athletic Insight*, 3, 213-228.
- Dorsch, K. D., & Paskevich, D. M. (2007). Stressful experiences among six certification levels of ice hockey officials. *Psychology of Sport and Exercise*, 8, 585-593.
- Driska, A. P., Kamphoff, C., & Armentrout, S. M. (2012). Elite swimming coaches' perceptions of mental toughness. *The Sport Psychologist*, 26, 186-206.
- Drees, M. J., & Mack, M. G. (2012). An examination of mental toughness over the course of a competitive season. *Journal of Sport Behavior*, 35, 377-386.
- Durand-Bush, N., & Samela, J. H. (2002). The development and maintenance of expert athletic performance: Perceptions of World and Olympic champions. *Journal of Applied Sport Psychology*, 14, 154-171.



- English Premier League. (2011). *The world's most watched league*. Retrieved February 14, 2012, from <http://www.premierleague.com/en-gb/about/the-worlds-most-watched-league.html>.
- Ericsson, K. A. (1996). The acquisition of expert performance: An introduction to some of the issues. In K. A. Ericsson (Eds.), *The road to excellence: The acquisition of expert performance in the arts and sciences, sports, and games* (pp. 1-50). Mahwah, NJ: Erlbaum.
- Fédération Internationale de Football Association. (2012). *Laws of the game*. Zurich, Switzerland: FIFA.
- Fourie, S., & Potgieter, J.R. (2001). The nature of mental toughness in sport. *South African Journal for Research in Sport, Physical Education & Recreation*, 23, 63-72.
- Freeman, P., & Rees. T. (2009). How does perceived support lead to better performance? An examination of potential mechanisms. *Journal of Applied Sport Psychology*, 21, 429-441.
- Freeman, P., Rees, T., Hardy, L. (2009). An intervention to increase social support and improve performance. *Journal of Applied Sport Psychology*, 21, 186-200.
- Gage, N. A., & Lewis, T. J. (2013). Analysis of effect for single-case design research. *Journal of Applied Sport Psychology*, 25, 46-60.
- Gamble, R., Hill, D. M., & Parker, A. (2013). Revs and psychos: Role, impact and interaction of sport chaplains and sport psychologists within English premiership soccer. *Journal of Applied Sport Psychology*, 25, 246-264.
- Gilbourne, D., & Richardson, D. (2006). Tales from the field: Personal reflections on the provision of psychological support in professional soccer. *Psychology of Sport and Exercise*, 7, 325-337.

- Gilis, B., Helsen, W. F., Catteeuw, P., Van Roie, E., & Wagemans, J. (2009). Interpretation and application of the offside law by expert assistant referees: Perception of spatial positions in complex dynamic events on and off the field. *Journal of Sports Sciences*, 27, 551-563.
- Gilis, B., Weston, M., Helsen, W. F., Junge, A., & Dvorak, J. (2006). Interpretation and application of the laws of the game in football incidents leading to player injuries. *International Journal of Sport Psychology*, 37, 121-138.
- Goldberg, A.S. (1998). *Sports slump busting: 10 steps to mental toughness and peak performance*. Champaign, IL: Human Kinetics.
- Gordin, R. D., & Henschen, K. P. (2012). Reflections on the psychological preparation of the USA ski and snowboard team for the Vancouver 2010 Olympic Games. *Journal of Sport Psychology in Action*, 3, 88-97.
- Gordon, S., & Guccairdi, D. F. (2011). A strengths-based approach to coaching mental toughness. *Journal of Sport Psychology in Action*, 2, 143-155.
- Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology*, 14, 172-204.
- Gould, D., & Eklund, D. C. (2007). The application of sport psychology for performance optimization. In D. Smith & M. Bar-Eli (Eds.), *Essential readings in sport and exercise psychology* (pp. 231-240). Champaign, IL: Human Kinetics.
- Gould, D., Eklund, R. C., & Jackson, S. A. (1992a). 1988 U.S. Olympic wrestling excellence: I. Mental preparation, precompetitive cognition, and affect. *The Sport Psychologist*, 6, 358-382.
- Gould, D., Eklund, R. C., & Jackson, S. A. (1992b). 1988 U.S. Olympic wrestling excellence: II. Thoughts and affect occurring during competition. *The Sport Psychologist*, 6, 383-402.

- Gould, D., Griffes, K., & Carson, S. (2011). Mental toughness as a life skill. In D. F. Gucciardi & S. Gordon (Eds.), *Mental toughness in sport: Developments in theory and research* (pp. 163-186). Abingdon, Oxon: Routledge.
- Gould, D., Guinan, D., Greenleaf, C., Medbery, R., & Peterson, K. (1999). Factors affecting Olympic performance: Perceptions of athletes and coaches from more and less successful teams. *The Sport Psychologist*, 13, 371-395.
- Gould, D., Hodge, K., Peterson, K., & Petlichkoff, L. (1987). Psychological foundations of coaching: Similarities and differences among intercollegiate wrestling coaches. *The Sport Psychologist*, 1, 293-308.
- Gould, D., Jackson, S. A., & Finch, L. M. (1993). Life at the top: The experience of U.S. national champion figure skaters. *The Sport Psychologist*, 7, 354-374.
- Gould, D., & Maynard, I.W. (2009). Psychological preparation for the Olympic Games. *Journal of Sport Sciences*, 27, 1393-1408.
- Gould, D., Weiss, M., & Weinberg, P. (1981). Psychological characteristics of successful and unsuccessful big ten wrestlers. *Journal of Sport Psychology*, 13, 69-81.
- Greenleaf, C. A., Gould, D., & Dieffenbach, K. (2001). Factors influencing Olympic performance: Interviews with Atlanta and Nagano U.S. Olympians. *Journal of Applied Sport Psychology*, 13, 179-209.
- Gucciardi, D. F. (2009). Do developmental differences in mental toughness exist between specialised and invested Australian footballers? *Personality and Individual Differences*, 47, 985-989.
- Gucciardi, D. F. (2010). Mental toughness profiles and their relations with achievement goals and sport motivation in adolescent Australian footballers. *Journal of Sports Sciences*, 28, 615-625.

- Gucciardi, D. F. (2011). The relationship between developmental experiences and mental toughness in adolescent cricketers. *Journal of Sport & Exercise Psychology*, 33, 370-393.
- Gucciardi, D. F., & Gordon, S. (2009). Development and preliminary validation of the Cricket Mental Toughness Inventory (CMTI). *Journal of Sports Sciences*, 27, 1293-1310.
- Gucciardi, D. F., & Gordon, S. (2011). *Mental toughness in sport: Developments in research and theory*. Abingdon, Oxon: Routledge.
- Gucciardi, D.F., Gordon, S., & Dimmock, J. A. (2008). Towards an understanding of mental toughness in Australian football. *Journal of Applied Sport Psychology*, 20, 261-281.
- Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2009a). Development and preliminary validation of a mental toughness inventory for Australian football. *Psychology of Sport and Exercise*, 10, 201-209.
- Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2009b). Advancing mental toughness research and theory using personal construct psychology. *International Review of Sport and Exercise Psychology*, 2, 54-72.
- Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2009c). Evaluation of a mental toughness training program for youth-aged Australian footballers: I. A quantitative analysis. *Journal of Applied Sport Psychology*, 21, 307-323.
- Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2009d). Evaluation of a mental toughness training program for youth-aged Australian footballers: II. A qualitative analysis. *Journal of Applied Sport Psychology*, 21, 324-339.
- Gucciardi, D. F., Gordon, S., Dimmock, J. A., & Mallett, C. J. (2009). Understanding the coach's role in the development of mental toughness: Perspectives of elite Australian football coaches. *Journal of Sport Sciences*, 27, 1483-1496.

- Gucciardi, D. F., Hanton, S., & Mallett, C. J., (2012). Progressing measurement in mental toughness: A case example of the Mental Toughness Questionnaire 48. *Sport, Exercise, and Performance Psychology, 1*, 194-214.
- Gucciardi, D. F., & Jones, M. I. (2012). Beyond optimal performance: Mental toughness profiles and developmental success in adolescent cricketers. *Journal of Sport and Exercise Psychology, 34*, 16-36.
- Gucciardi, D. F., Mallett, C. J., Hanrahan, S. J., & Gordon, S. (2011). Measuring mental toughness in sport: Current status and future directions. In D. F. Gucciardi & S. Gordon (Eds.), *Mental toughness in sport: Developments in theory and research* (pp. 108-132). Abingdon, Oxon: Routledge.
- Guillén, F., & Feltz, D. L. (2011). A conceptual model of referee efficacy. *Frontiers in Psychology, 2*. DOI: 10.3389/fpsyg.2011.00025.
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate Data Analysis* (6th Eds.). New Jersey: Pearson Educational, Inc.
- Hancock, D. J., & Ste-Marie, D. M. (2013). Gaze behaviors and decision making accuracy of higher- and lower-level ice hockey referees. *Psychology of Sport and Exercise, 14*, 66-71.
- Harwood, C., Drew, A., & Knight, C. J. (2010). Parental stressors in professional youth football academies: A qualitative investigation of specializing stage parents. *Qualitative Research in Sport and Exercise, 2*, 39-55.
- Hays, K., Maynard, I., Thomas, O., & Bawden, M. (2007). Sources and types of confidence identified by World Class sport performers. *Journal of Applied Sport Psychology, 19*, 434-456.
- Helsen, W., & Bultynck, J. B. (2004). Physical and perceptual-cognitive demands of top-class refereeing in association football. *Journal of Sports Sciences, 22*, 179-189.

- Holt, N. L., & Dunn, J. G. H. (2004). Toward a grounded theory of the psychosocial competencies and environmental conditions associated with soccer success. *Journal of Applied Sport Psychology*, 16, 199-219.
- Hrycaiko, D. W., & Martin, G. L. (1996). Applied research studies with single-subject designs: Why so few? *Journal of Applied Sport Psychology*, 8, 183-199.
- Johnson, R. (2008). On referee bias, crowd size, and home advantage in the English soccer Premiership. *Journal of Sports Sciences*, 26, 563-568.
- Johnson, C. A., & Gilbert, J. N. (2004). The psychological UNIFORM: Using mental skills in youth sport. *Strategies*, 18, 5-9.
- Jones, G. (2002). Performance excellence: A personal perspective on the link between sport and business. *Journal of Applied Sport Psychology*, 14, 268-281.
- Jones, G., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Journal of Applied Sport Psychology*, 14, 205-218.
- Jones, G., Hanton, S., & Connaughton, D. (2007). A framework of mental toughness in the world's best performers. *The Sport Psychologist*, 21, 243-264.
- Jones, M. I., & Harwood, C. G. (2008). Psychological momentum within competitive soccer: Players' perspectives. *Journal of Applied Sport Psychology*, 20, 57-72.
- Jones, M. V., Paull, G. C., & Erskine, J. (2002). The impact of a team's aggressive reputation on the decisions of association football referees. *Journal of Sports Sciences*, 20, 991-1000.
- Jordet, G. (2005). Perceptual training in soccer: An imagery intervention study with elite players. *Journal of Applied Sport Psychology*, 17, 140-156.
- Kaiseler, M., Polman, R., & Nicholls, A. (2009). Mental toughness, stress, stress appraisal, coping and coping effectiveness in sport. *Personality and Individual Differences*, 47, 728-733.

- Kelly, G. A. (1955). *The psychology of personal constructs*. New York, NY: Norton.
- Kelly, G. A. (1991). *The psychology of personal constructs: A theory of personality*. London, UK: Routledge (Original work published 1955).
- Kitson, R. (2013). *England talk up Owen Farrell ahead of Six Nations showdown with Ireland*. Retrieved February 19, 2013, from <http://www.guardian.co.uk/sport/2013/feb/05/england-owen-farrell-ireland>.
- Krustrup, P., Helsen, W. F., Randers, M. B., Christensen, J. F., MacDonald, C., Natal Rebelo, A., & Bangsbo, J. (2009). Activity profile and physical demands of football referees and assistant referees in international games. *Journal of Sports Sciences*, 27, 1167-1176.
- Lane, A. M., Nevill, A. M., Ahmad, N. S., & Balmer, N. (2006). Soccer referee decision making: 'Shall I blow the whistle?' *Journal of Sport Sciences and Medicine*, 5, 243-253.
- Larkin, P., Berry, J., Dawson, B., & Lay, B. (2011). Perceptual and decision-making skills of Australian football umpires. *International Journal of Performance Analysis in Sport*, 11, 427-437.
- Levy, A. R., Nicholls, A. R., & Polman, R. C. J. (2012). Cognitive appraisals in sport: The direct and moderating role of mental toughness. *International Journal of Applied Psychology*, 2, 71-76.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic enquiry*. Beverly Hills, CA: Sage.
- Loehr, J.E. (1982). *Athletic excellence: Mental toughness training for sports*. New York: Plume.
- MacMahon, C., Helsen, W. F., Starkes, J. L., & Weston, M. (2007). Decision-making skills and deliberate practice in elite association football referees. *Journal of Sports Sciences*, 25, 65-78.

- MacMahon, C., & Plessner, H. (2008). The sports official in research and practice. In D. Farrow, J. Baker, & C. MacMahon (Eds.), *Developing elite sports performers: Lessons from theory and practice* (pp. 172-188). London, England: Routledge.
- MacMahon, C., & Ste-Marie, D. M. (2002). Decision-making by experienced rugby referees: Use of perceptual information and episodic memory. *Perceptual and Motor Skills*, 95, 570-572.
- MacNamara, A., Button, A., & Collins, D. (2010a). The role of psychological characteristics in facilitating the pathway to elite performance. Part one: Identifying mental skills and behaviours. *The Sport Psychologist*, 24, 52-72.
- MacNamara, A., Button, A., & Collins, D. (2010b). The role of psychological characteristics in facilitating the pathway to elite performance. Part two: Examining environmental and stage-related differences in skills and behaviours. *The Sport Psychologist*, 24, 74-96.
- Mahoney, M. J., & Avenier, M. (1977). Psychology of the elite athlete: An exploratory study. *Cognitive Therapy and Research*, 1, 135-141.
- Mahoney, M. J., Gabriel, T.J., & Perkins, T.S. (1987). Psychological skills and exceptional athletic performance. *The Sport Psychologist*, 1, 181-199.
- Martin, J. J. (2012). Mental preparation for the 2014 Winter Paralympic Games. *Clinical Journal of Sport Medicine*, 22, 70-73.
- Martin, G. L., Thompson, K., & Regehr, K. (2004). Studies using single-subject designs in sport psychology: 30 years of research. *The Behaviour Analyst*, 27, 263-280.
- Martindale, R. J. J., Collins, D., & Abraham, A. (2007). Effective talent development: The elite coach perspective in UK sport. *Journal of Applied Sport Psychology*, 19, 187-206.



- Mascarenhas, D. R. D., Collins, D., & Mortimer, P. (2005a). Elite refereeing performance: Developing a model for sport science support. *The Sport Psychologist*, 19, 364-379.
- Mascarenhas, D. R. D., Collins, D., & Mortimer, P. (2005b). The accuracy, agreement and coherence of decision making in rugby union officials, *Journal of Sport Behavior*, 28, 253-271.
- Mascarenhas, D. R. D., O'Hare, D., & Plessner, H. (2006). The psychological and performance demands of association football refereeing. *International Journal of Sport Psychology*, 37, 99-120.
- Mattie, P., & Munroe-Chandler, K. (2012). Examining the relationship between mental toughness and imagery use. *Journal of Applied Sport Psychology*, 24, 144-156.
- Maykut, P., & Morehouse, R. (1994). *Beginning qualitative research: A philosophical and practical guide*. London, England: The Falmer Press.
- Maynard, I. W., Hemmings, B., Greenlees, I. A., Warwick-Evans, L. & Stanton, N. (1998). Stress management in sport: A comparison of unimodal and multimodal interventions. *Anxiety, Stress and Coping*, 11, 225-246.
- McDougall, D. (2013). Applying single-case design innovations to research in sport and exercise psychology. *Journal of Applied Sport Psychology*, 25, 33-45.
- Mellick, M. C., Fleming, S., Bull, P., & Laugharne, E. J. (2005). Identifying best practice for referee decision communication in association and rugby union football. *Football Studies*, 8, 42-57.
- Meyer, B. B., & Fletcher, T. B. (2007). Emotional intelligence: A theoretical overview and implications for research and professional practice in sport psychology. *Journal of Applied Sport Psychology*, 19, 1-15.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd Eds.). London, England: Sage.

- Mills, A., Butt, J., Maynard, I., & Harwood, C. (2012). Identifying factors perceived to influence the development of elite youth football academy players. *Journal of Sports Sciences*, 30, 1593-1604.
- Morgan, W. P. (1979). Prediction of performance in athletics. In P. Klavara & J. V. Daniel (Eds.), *Coach, athlete, and the sport psychologist* (pp. 173–186). Champaign, IL: Human Kinetics.
- Murphy, S. (2009). Applied research. Video games, competition, and exercise: A new opportunity for sport psychologists? *The Sport Psychologist*, 23, 487-503.
- Murray, E. (2011). *Scottish referees need to toughen up*. Retrieved October 1, 2011, from <http://www.guardian.co.uk/football/2011/jan/14/celtic-scottish-referees>.
- Neil, R., Hanton, S., & Mellalieu, S. D. (2013). Seeing things in a different light: Assessing the effects of a cognitive-behavioural intervention upon the further appraisals of golfers. *Journal of Applied Sport Psychology*, 25, 106-130.
- Nesti, M. S. (2012). Mental Preparation of Elite Football Players. In *Soccer and Science*. Routledge.
- Nevill, A., Atkinson, G., & Hughes, M. (2008). Twenty-five years of sport performance research in the Journal of Sports Sciences. *Journal of Sports Sciences*, 26, 413-426.
- Nevill, A. M., Balmer, N. J., & Williams, A. M. (2002). The influence of crowd noise experience upon refereeing decisions in football. *Psychology of Sport and Exercise*, 3, 261-272.
- Nevill, A., Webb, T., & Watts, A. (2013). Improved training of football referees and the decline in home advantage post-WW2Original. *Psychology of Sport and Exercise*, 14, 220-227.

- Nicholls, A. R., Polman, R. C. J., Levy, A. R., & Backhouse, S. H. (2008). Mental toughness, optimism, pessimism, and coping among athletes. *Personality and Individual Differences, 44*, 1182-1192.
- Nicholls, A. R., Polman, R. C. J., Levy, A. R., & Backhouse, S. H. (2009). Mental toughness in sport: Achievement level, gender, age, experience, and sport type differences. *Personality and Individual Differences, 47*, 73-75.
- Noll, R. G. (2002). The economics of promotion and relegation in sports leagues: The case of English football. *Journal of Sports Economics, 3*, 169-203.
- O'Brien, M., Mellaieu, S. D., & Hanton, S. (2009). Goal-setting effects in elite and nonelite boxers. *Journal of Applied Sport Psychology, 21*, 293-306.
- Olusoga, P., Butt, J., Maynard, I., & Hays, K. (2010). Stress and coping: A study of world class coaches. *Journal of Applied Sport Psychology, 22*, 274-293.
- Orlick, T., & Partington, J. (1988). Mental links to excellence. *The Sport Psychologist, 2*, 105-130.
- Page, J., & Thelwell, R. C. (2013). The value of social validation in single-case methods in sport and exercise psychology. *Journal of Applied Sport Psychology, 25*, 61-71.
- Pain, M. A., Harwood, C. G., & Anderson, R. (2011). Pre-competition imagery and music : The impact on flow and performance in competitive soccer. *The Sport Psychologist, 25*, 212-232.
- Parkes, J. F., & Mallett, C. J. (2011). Developing mental toughness: Attributional style retraining in rugby. *The Sport Psychologist, 25*, 269-287.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods* (2nd Eds.). London, England: Sage.
- Perry, J. L., Clough, P. J., Earle, K., Crust, L., & Nicholls. A. R. (2013). Factorial validity of the Mental Toughness Questionnaire 48. *Personality and Individual Differences, 4*, 587-592.

- Philippe, F. L., Vallerand, R. J., Andrianarisoa, J., & Brunel, P. (2009). Passion in referees: Examining their affective and cognitive experiences in sport situations. *Journal of Sport and Exercise Psychology, 31*, 77-96.
- Pizzera, A., & Raab, M. (2012). Perceptual judgements of sports officials are influenced by their motor and visual experience. *Journal of Applied Sport Psychology, 24*, 59-72.
- Put, K., Wagemans, J., Jaspers, A., & Helsen, W. F. (2013). Web-based training improves on-field offside decision-making performance. *Psychology of Sport and Exercise, 14*, 577-585.
- Rees, T., & Hardy, L. (2000). An investigation of the social support experiences of high-level sport performers. *The Sport Psychologist, 14*, 327-347.
- Rees, T., Hardy, L., & Freeman, P. (2007). Stressors, social support and effects upon performance in golf. *Journal of Sports Sciences, 25*, 319-337.
- Reilly, B., & Witt, R. (2013). Red cards, referee home bias and social pressure: Evidence from English Premiership Soccer. *Applied Economics Letters, 20*, 710-714.
- Robazza, C., & Bortoli, L. (1998). Mental preparation strategies of Olympic archers during competition: An exploratory investigation. *High Abilities Studies, 9*, 219-235.
- Rookwood, J., & Chan, N. (2011). The 39th game: Fan responses to the Premier League's proposal to globalize the English game. *Society and Soccer, 12*, 897-913.
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data*. (2nd Eds.). Thousand Oaks, CA: Sage.
- Samulski, D. M., & Lopes, M. C. (2008). Counseling Brazilian athletes during the Olympic Games in Athens 2004: Important issues and intervention techniques. *International Journal of Sport and Exercise Psychology, 6*, 277-286.

- Scanlan, T. K., Ravizza, K., & Stein, G. L. (1989). An in-depth study of former elite figure skaters: I. Introduction to the project. *Journal of Sport and Exercise Psychology*, 11, 54-64.
- Schlosser, W. R., Lee, D. L., & Wendt, O. (2008). Application of the percentage of non-overlapping data (PND) in systematic reviews and meta-analyses: A systematic review of reporting characteristics. *Evidence-Based Communication Assessment and Intervention*, 2, 163-187.
- Schweizer, G., Plessner, H., & Brand, R. (2013). Establishing standards for basketball elite referees' decisions. *Journal of Applied Sport Psychology*, 25, 370-375.
- Schweizer, G., Plessner, H., Kahlert, D., & Brand, R. (2011). A video-based training method for improving soccer referees' intuitive decision-making skills. *Journal of Applied Sport Psychology*, 23, 429-442.
- Scruggs, T. E., & Mastropieri, M. A. (2001). How to summarize single-participant research: Ideas and applications. *Exceptionality*, 9, 227-244.
- Sheard, M. (2012). *Mental toughness: The mindset behind sporting achievement* (2nd Eds.). New York, NY: Routledge.
- Sheard, M., Golby, J., & van Wersch, A. (2009). Progress toward construct validation of the Sports Mental Toughness Questionnaire. *European Journal of Psychological Assessment*, 25, 186– 193.
- Sinnott, J. (2011). *Referees in the spotlight*. Retrieved November 1, 2011, from <http://news.bbc.co.uk/sport1/hi/football/9379989.stm>.
- Slack, L. A., Butt, J., Maynard, I. W., & Olusoga, P. (in press). Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees. *Sport and Exercise Psychology Review*.

- Slack, L. A., Maynard, I. W., Butt, J., & Olusoga, P. (2013). Factors underpinning football officiating excellence: Perceptions of English Premier League referees. *Journal of Applied Sport Psychology*, 25, 298-315.
- Souchon, N., Cabagno, G., Traclet, A., Trouilloud, D., & Maio, G. (2009). Referees' use of heuristics: The moderating impact of standard of competition. *Journal of Sports Sciences*, 27, 695-700.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd Eds.). Newbury Park, CA: Sage.
- The FA. (2012). *Welcome to respect*. Retrieved September 25, 2012, from <http://www.thefa.com/leagues/respect>.
- The Guardian. (2009). *Alex Ferguson charged after questioning Alan Wiley's fitness*. Retrieved January 4, 2010, from <http://www.guardian.co.uk/football/2009/oct/19/alex-ferguson-referee-fitness-charge>.
- Thelwell, R. C., Greenlees, I. A., & Weston, N. J. V. (2006). Using psychological skills training to develop soccer performance. *Journal of Applied Sport Psychology*, 18, 254-270.
- Thelwell, R. C., & Maynard, I. W. (2003). The effects of a mental skills package on 'repeatable good performance' in cricketers. *Psychology of Sport and Exercise*, 4, 377-396.
- Thelwell, R. C., Such, B. A., Weston, N. J. V., Such, J. D., & Greenlees, I. A. (2010). Developing mental toughness: Perceptions of elite female gymnasts. *International Journal of Sport and Exercise Psychology*, 8, 170-188.
- Thelwell, R. C., Weston, N., & Greenlees, I. (2005). Defining and understanding mental toughness within soccer. *Journal of Applied Sport Psychology*, 17, 326-332.

- Thomas, O., Maynard, I. W., & Hanton, S. (2007). Intervening with athletes during the time leading up to competition: Theory to practice II. *Journal of Applied Sport Psychology, 19*, 398-418.
- Thomas, P. R., Murphy, S. M., & Hardy, L. (1999). Test of performance strategies: Development and preliminary validation of a comprehensive measure of athletes' psychological skills. *Journal of Sports Sciences, 17*, 697-711.
- Tsorbatzoudis, H., Kasisdis-Rodafinos, A., Partemian, S., & Grouios, G. (2005). Sources of stress among Greek team handball referees: Construction and validation of the handball's officials' sources of stress survey. *Perceptual and Motor Skills, 100*, 821-830.
- Union of European Football Associations. (2012). *UEFA convention on referee education and organisation*. Nyon, Switzerland: UEFA.
- Unkelbach, C., & Memmert, D. (2008). Game management, context effects, and calibration: The case of yellow cards in soccer. *Journal of Sport and Exercise Psychology, 30*, 95-109.
- Vaeyens, R., Lenoir, M., Williams, M. A., & Philippaerts, R. M. (2008). Talent identification and development programmes in sport: Current models and future directions. *Sports Medicine, 38*, 703-714.
- Vallee, C. N., & Bloom, G. A. (2005). Building a successful program: Perspectives of expert Canadian female coaches of team sports. *Journal of Applied Sport Psychology, 17*, 179-196.
- Van Quaquebeke, N., & Giessner, S. R. (2010). How embodied cognitions affect judgments: Height-related attribution bias in football foul calls. *Journal of Sport & Exercise Psychology, 32*, 3-22.

- Vernacchia, R. A., McGuire, R. T., Reardon, J. P., & Templin, D. P. (2000). Psychosocial characteristics of Olympic track and field athletes. *International Journal of Sport Psychology*, 31, 5-23.
- Vidic, Z., & Burton, D. (2010). The roadmap: Examining the impact of a systematic goal-setting programme for collegiate women's tennis players. *The Sport Psychologist*, 24, 427-447.
- Voight, M. (2009). Sources of stress and coping strategies of US soccer officials. *Stress and Health*, 25, 91-100.
- Weight, T., Hannon, V., & Williams, R. (2010). *The FA Match-Assessor's Handbook 2010*. Retrieved March 21, 2013, from [http://www.thefa.com/News/my-football/referees/2010/sep/~/\\_media/F1B9D32101E847CC8264697CD5F99A50.aspx/5141%20RefAssHBook-7.pdf](http://www.thefa.com/News/my-football/referees/2010/sep/~/_media/F1B9D32101E847CC8264697CD5F99A50.aspx/5141%20RefAssHBook-7.pdf).
- Weinberg, R. S., Butt, J., & Culp, B. (2011). Coaches' views of mental toughness and how it is built. *International Journal of Sport and Exercise Psychology*, 9, 156-172.
- Weston, M., Bird, S., Helsen, W. F., Nevill, A., & Castagna, C. (2006). The effect of match standard and the referee experience on the objective and subjective match workload of English Premier League referees. *Journal of Science and Medicine in Sport*, 9, 256-262.
- Weston, J. V., Thelwell, R. C. Bond, S., & Hutchings, N. V. (2009). Stress and coping in single-handed round-the-world ocean sailing. *Journal of Applied Sport Psychology*, 21, 460-474.
- Williams, J. M., & Krane, V. (1998). Psychological characteristics of peak performance. In J.M. Williams (Eds.) *Applied sport psychology: Personal growth to peak performance* (pp. 158-170). Mountain View, CA: Mayfield.



- Williams, J. M., & Krane, V. (2001). Psychological characteristics of peak performance. In J. M. Williams (Eds.) *Applied sport psychology: Personal growth to peak performance* (pp. 137-147). Mountain View, CA: Mayfield.
- Wilson, R. C., Sullivan, P. J., Myers, N. D., & Feltz, D. L. (2004). Sources of sport confidence of master athletes. *Journal of Sport and Exercise Psychology*, 26, 369-384.
- Winter, H. (2012). *Referees must get greater respect from the Football Association and game in general before it is too late*. The Telegraph. Retrieved February 18, 2013, from <http://www.telegraph.co.uk/sport/football/9735502/Referees-must-get-greater-respect-from-the-Football-Association-and-game-in-general-before-it-is-too-late.html>.
- Wolfson, S., & Neave, N. (2007). Coping under pressure: Cognitive strategies for maintaining confidence among soccer referees. *Journal of Sport Behavior*, 30, 232-247.
- Woodman, T. & Hardy, L. (2001). A case study of organizational stress in elite sport. *Journal of Applied Sport Psychology*, 13, 207-238.

## ***Word Count***

*58,126*

## *Appendices*

# ***Appendix A***

## ***Ethics Approval for Study One***

*Application for Ethics Approval of Research*

*Risk Assessment Pro Forma*

*Participant Information Sheet*

*Informed Consent Form*

## Appendix A: Ethics Approval for Study One

Application for Ethics Approval of Research

### CONFIDENTIAL



*Sheffield Hallam University*

**Faculty of Health and Wellbeing  
Research Ethics Committee**

**Sport & Exercise Research Ethics Review Group**

### APPLICATION FOR ETHICS APPROVAL OF RESEARCH

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Sport and Exercise Research Ethics Review Group before approving a project. **ALL** of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

<b>1) Date of application</b>	May 2010
<b>2) Anticipated date of completion of project</b>	November 2010
<b>3) Title of research</b>	Factors underpinning elite football officiating: Perceptions of English Premier League referees
<b>4) Subject area</b>	Sport and Performance Psychology
<b>5) Principal Investigator</b>  Name Email address @ SHU Telephone/Mobile number Student number (if applicable)	Liam Andrew Slack liam.slack@shu.ac.uk 0114 225 5368 / 07832 979 491 B20002333
<b>6) State if this study is:</b> (If the project is undergraduate or postgraduate please state module name and number)	<input checked="" type="checkbox"/> Research <input type="checkbox"/> Undergraduate <input type="checkbox"/> Postgraduate  Module name: Module number:
<b>7) Director of Studies/Supervisor/Tutor name</b>	Director of Studies: Prof. Ian W. Maynard Second Supervisor (1): Dr. Joanne Butt Second Supervisor (2): Dr. Peter Olusoga

<b>8) Intended duration and timing of project?</b>	<b>May 2010-</b> Preparation of participant list and initial contact with potential participants. <b>May- July 2010-</b> Recruitment of participants. <b>May-June 2010-</b> Pilot testing and review of interview guide. <b>July- Aug 2010-</b> Conduct and transcribe interviews. <b>Sept-Oct 2010-</b> Data analysis. <b>Sept-Nov 2010-</b> Write up of study.
<b>9) Location of project</b> If external to SHU, provide evidence in support (see section 17)	The research project will be conducted at Sheffield Hallam University, participants training facilities or a location of their choice.
<b>10) State if this study is:</b>	<input checked="" type="checkbox"/> New <input type="checkbox"/> Collaborative (please include appropriate agreements in section 17) <input type="checkbox"/> Replication of :
<div> <b>11) Purpose and benefit of the research</b>          Statement of the research problem with any necessary background information (no more than 1 side of A4)       </div> <div> <p>It is widely recognised that to achieve performance excellence, a multitude of factors are required for sport performers to reach the pinnacle of their sport (Gould &amp; Maynard, 2009). With elite athletes and coaches being the central focus, research has enhanced our understanding of the salient characteristics pertinent to elite athletic performance (e.g., Gould, Dieffenbach, &amp; Moffett, 2002; Greenleaf, Gould, &amp; Dieffenbach, 2001). Moreover, sport psychology research has begun to examine alternative sporting personnel in an attempt to provide additional understanding of performance excellence within elite-level sport. Such areas include elite coaching (Martindale, Collins, &amp; Abraham, 2007) and excellence at youth-level (Holt &amp; Dunn, 2004). However, little is known of what constitutes performance excellence within elite sport officiating (Mascarenhas, Collins, &amp; Mortimer, 2005).</p> <p>In one of the earliest studies surrounding performance excellence, Orlick and Partington (1988) examined the psychological associations to excellence by interviewing and surveying Canadian athletes from the 1984 Los Angeles Olympic Games. Mental readiness, the application of imagery and greater levels of concentration all emerged as significant factors. Subsequently, a host of studies examined Olympic athletes in an attempt to further understand factors salient to performance excellence in that context (Gould, Eklund, &amp; Jackson, 1992a; 1992b; Gould, Jackson, &amp; Finch, 1993). In two other studies, team training, crowd support, family/friends support, focus and commitment, physical and mental preparation, the application of mental skills, social support services and coaching methods, were all factors perceived to influence successful performance US Olympic teams (Gould, Guinan, Greenleaf, Medbery, &amp; Peterson, 1999; Greenleaf et al. 2001).</p> <p>Several studies have provided additional understanding by exploring the</p> </div>	

development and maintenance of factors prevalent within superior athletic performance. For example, Gould et al., (2002) interviewed ten US Olympic champions representing nine different events. Findings suggested that the athletes' psychological development was influenced by a number of individual and institutional factors, including family, sporting personnel and the individual themselves. Further findings indicated that athletes were characterised as mentally tough, self-confident, focused, highly competitive and possessing a high-work ethic. In addition, a comparable study by Durand-Bush and Salmela (2002) examined factors contributing to the development and maintenance of performance excellence. Ten Olympians, having won two separate gold medals at the Olympics and/or World championships, were interviewed using a semi-structured guide. Results specified support networks, individual attributes, and training and competition factors that contributed to optimal athletic performance.

However, other sporting personal (e.g., sports officials) have received limited attention. Given the ever-increasing demands and high public scrutiny from various agencies, it seems clear that officials must perform at a high-level in demanding sporting environments. However, while recent research has explored sources of stress for officials and referees (e.g., Tsorbatzoudis, Kasisdis-Rodafinos, Partemian, & Grouios, 2005; Voight, 2009), coping (e.g., Wolfson & Neave, 2007), and performance demands for officials (e.g., Mascarenhas et al. 2005; Mascarenhas, O'Hare, & Plessner, 2006), factors underpinning officiating excellence of this group have remained unexplored.

Therefore the aim of this initial exploratory study is to identify and examine salient factors underpinning elite football officiating performance. Specifically, this will involve gaining the perceptions of '*Select Group Referees*', a panel of match officials appointed to referee English Premier League football matches.

<b>12) Participants</b>	
<b>12.1 Number</b>	12-16 ' <i>Select Group Referees</i> ' (A panel of referees appointed to officiate football matches in the English Premier League).
<b>12.2 Rationale for this number</b> (eg calculations of sample size, practical considerations)	<p>The sample size for this study will be purposefully selected (Patton, 2002) in order to provide a depth and richness to the information gathered.</p> <p>Based on previous qualitative research of this nature (Gould, Dieffenbach, &amp; Moffett, 2002), a total of 12-16 '<i>Select Group Referees</i>' will be recruited to participate.</p> <p>This sample size is considered adequate in order to generate sufficient in-depth data whilst taking into account the logistics and practicalities of recruiting, conducting, transcribing and analysing interviews within the proposed timescale.</p>
<b>12.3 Criteria for inclusion and exclusion</b> (eg age and sex)	All participants must be a current member of the 'Select Group' Referees' panel.
<b>12.4 Procedures for recruitment</b> (eg location and methods)	<p>A purposive selection procedure (Patton, 2002) will be utilised to recruit potential participants for this investigation.</p> <p>Following completion of institutional ethics approval procedures, participants will be contacted initially via phone/e-mail and invited to participate. For those who agree to participate, a letter of information outlining the intention and prospective benefits of the investigation, as well as a detailed account of participation requirements will be administered. In addition, convenient times and locations for the interviews will be agreed.</p> <p>To ensure confidentiality, an informed-consent form will be given to each participant. In addition, it will be made clear the present study will be voluntary in nature and are permitted to withdraw any time throughout its duration.</p>



<b>12.5 Does the study have *minors or ‡vulnerable adults as participants?</b>	[ ] Yes      [✓] No
<b>12.6 Is CRB Disclosure required for the Principal Investigator? (to be determined by Risk Assessment)</b>	[ ] Yes      [✓] No  If yes, is standard [ ] or enhanced [ ] disclosure required?
<b>12.7 If you ticked 'yes' in 12.5 and 'no' in 12.6 please explain why:</b>	

\*Minors are participants under the age of 18 years.  
 ‡Vulnerable adults are participants over the age of 16 years who are likely to exhibit:  
 a) learning difficulties  
 b) physical illness/impairment  
 c) mental illness/impairment  
 d) advanced age  
 e) any other condition that might render them vulnerable

<p><b>13) Details of the research design</b></p> <p><b>13.1 Provide details of intended methodological procedures and data collection.</b>          (For MSc students conducting a scientific support project please provide the following information: a. needs analysis; b. potential outcome; c proposed interventions).</p> <p>In view of the relatively limited research into performance excellence within elite sport officiating, in-depth interviews will be used as a qualitative method of data collection. A purposive sampling procedure (Patton, 2002) will be utilised to recruit 12-16 English Premier League football match officials. Participants will be required to be a current member within the 'Select Group Referees' panel. With institutional ethics approval, a letter of information outlining the intention and prospective benefits of the investigation, as well as a detailed account of participation requirements will be administered. To ensure confidentiality, an informed-consent form will be given to each participant and it will be made clear that the study is voluntary and that they are permitted to withdraw at any time. Interviews will be conducted at the participants training facilities or at a time and location that is compatible with each participant's schedule. In both cases, the interviewer (principal researcher) will travel to the participants to conduct the interviews.</p> <p>An in-depth, semi-structured interview guide consisting of a series of open-ended questions will be developed. Following procedures successfully adopted by previous researchers (e.g., Gould, Dieffenbach, Moffett, 2002; Greenleaf, Gould, Dieffenbach, 2001) the interview guide will explore participants' perceptions and experiences of factors underpinning performance excellence. A series of pilot interviews will also be utilised allowing the researcher to hone interviewing skills and address the appropriateness of the interview questions. Throughout the one to one interviews, the principal researcher will follow the semi-structured interview guide and also account for the natural flow that may</p>
--

be present. In addition, elaboration probes will be employed where necessary until saturation is deemed to have occurred on a particular issue (Lincoln & Guba, 1985). All interviews will be digitally audio recorded and transcribed verbatim.

**13.2 Are these "minor" procedures as defined in Appendix 1 of the ethics guidelines?**

☒ Yes      ☐ No

**13.3 If you answered 'no' in section 13.2, list the procedures that are not minor**

**13.4 Provide details of the quantitative and qualitative analysis to be used**

Inductive elements will be implemented to analyse the qualitative data. The content of each individual interview will be read and re-read by the team of researchers until they become familiar. Following procedures outlined by Patton (2002), and used extensively within current sport psychology research (e.g., Gould, Dieffenbach, Moffett, 2002), content analysis will be employed. Researchers will individually code raw data themes (quotes or paraphrased quotes representing a single meaningful point or thought) characterising participants responses to each question in the interview guide.

The team of researchers will consensually agree on the grouping of raw data themes into lower-order themes. Once lower-order themes are established, investigators will then individually assign lower-order themes into higher-order categories. Once higher-order categories have been consensually validated, this analytical process will then progress deductively when the research group will merge higher-order categories to develop global general dimensions.

Following recommendations from Lincoln and Guba (1985), triangulation will be maintained throughout the data analysis period. Ensuring that all identified themes will be constantly scrutinised and categorised into the correct general dimensions. If there are disagreements between researchers, transcripts will be re-read and extensive discussions as well as group meetings will follow until a consensus is reached. During these discussions, particular credence will be given to the views of the principal researcher who conducted the interviews and who listened to and transcribed the digital audio recordings. In addition, the team of researchers will re-read and review the data, making sure the emerging patterns will be made intuitively and can be easily understood.

**14) Substances to be administered (refer to Appendix V of the ethics procedures)**

**14.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements.**

Please tick box if this statement applies and go to section 15) ☒

**14.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.**

**15) Degree of discomfort that participants might experience**

Consider the degree of physical and psychological discomfort that will be experienced by the participants. State the details which must be included in the

participant information sheet to ensure that the participants are fully informed about any discomfort that they may experience.

Due to the nature of the study, it is believed that the participants will not experience any physical or psychological discomfort during the interview process. Furthermore, the participants will be reminded that anonymity and confidentiality will be assured, they do not have to answer a question should they choose not to, and that they may withdraw from the investigation at any time. This information will be included on the participation information sheet.

## 16) Outcomes of Risk Assessment

Provide details of the risk and explain how the control measures will be implemented to manage the risk.

### Control Measures

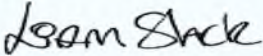
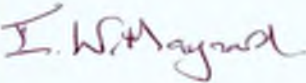
#### Participant feeling slight discomfort in talking about their experiences

All interview material will remain anonymous.

Participants do not have to answer specific questions if they choose not to.

Participants are free to stop the interview and withdraw from the study at any time.

17) Attachments	Tick box
17.1 Risk assessment (including CRB risk assessment)	✓
17.2 COSHH assessment	
17.3 Participant information sheet (this should be addressed directly to the participant (ie you will etc) and in a language they will understand)	✓
17.4 Informed consent form	✓
17.5 Pre-screening questionnaire	
17.6 Collaboration evidence/support correspondence from the organisation consenting to the research (this must be on letterhead paper and signed) See sections 9 & 10.	
17.7 CRB Disclosure certificate <u>or</u> where not available CRB application form	
17.8 Clinical Trails form (FIN 12)	

<b>18. Signature Principal Investigator</b>	<p>Once this application is approved, I will undertake the research study as approved. If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor. If the supervisor advises that there should be a resubmission to the Sport and Exercise Research Ethics Review Group, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.</p> <p style="text-align: center;"></p> <p style="text-align: right;">Date: <b>01/05/2010</b></p> <p>Principal Investigator signature Name Liam Andrew Slack</p>
<b>19. Approval Project Supervisor</b> to sign <b>either</b> box A <b>or</b> box B as applicable  (refer to Appendix I and the flowchart in appendix VI of the ethics guidelines)	<p><b>Box A:</b>  I confirm that the research proposed is based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore does not need to be submitted to the HWB Sport and Exercise Research Ethics Review Group.  In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.</p> <p style="text-align: center;"></p> <p style="text-align: right;">Date: <b>01/05/2010</b></p> <p>Project Supervisor signature Name Prof. Ian W. Maynard</p>
	<p><b>Box B:</b>  I confirm that the research proposed is <u>not</u> based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore <u>must</u> be submitted to the HWB Sport and Exercise Research Ethics Review Group for approval.  I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to the HWB Sport and Exercise Research Ethics Review Group.</p> <p style="text-align: right;">Date _____</p> <p>Project Supervisor signature _____</p> <p>Name _____</p>
<b>20. Signature Technician</b>	<p>I confirm that I have seen the full and approved application for ethics approval and technical support will be provided.</p> <p style="text-align: right;">Date _____</p> <p>Technician signature _____</p> <p>Name _____</p>

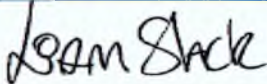


Appendix A: Ethics Approval for Study One

Risk Assessment Pro Forma

	<p><i>Sheffield Hallam University</i></p> <p><b>Faculty of Health and Wellbeing Research Ethics Committee</b> <b>Sport and Exercise Research Ethics Review Group</b></p> <p><b>Risk Assessment Pro Forma</b></p>
---	--

**\*\*Please ensure that you read the accompanying Risk Assessment Risk Ranking document before completing this form\*\***

<b>Title of research</b>	Factors underpinning elite football officiating: Perceptions of English Premier League referees
<b>Date Assessed</b>	01/05/2010
<b>Assessed by (Principal Investigator)</b>	Mr. Liam Andrew Slack (liam.slack@shu.ac.uk)
<b>Signed</b>	<b>Position</b>
	Principal Investigator

Activity	Risks	Control Measures
Semi-structured in-depth Interviews.	<p><b>Risk</b> of [Participants feeling slight discomfort] caused by [discussion of sensitive topics].</p> <p>(R1= C1 x L1) <b>LOW RISK</b></p>	<p>All interview material will remain anonymous and confidential.</p> <p>Participants do not have to answer specific questions if they choose not to.</p> <p>Participants are free to stop the interview and withdraw from the study at any time.</p>

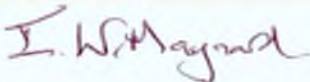
<b>Risk Evaluation (Overall)</b>
<b>Low</b>  Due to the nature of the study, it is believed that the participants will not experience any physical or psychological discomfort during the interview process. Furthermore, the participants will be reminded that anonymity and confidentiality will be assured, they do not have to answer a question should they choose not to, and that they may withdraw from the investigation at any time. This information will be included on the participation information sheet.

<b>General Control Measures</b>
Is a pre-screen medical questionnaire required? Yes [ ] No [ <input checked="" type="checkbox"/> ]  1. Participant given participant Information Sheet. Confirm understanding. 2. Participant reads and signs Informed Consent Form.

<b>Emergency Procedures</b>
None

<b>Monitoring Procedures</b>
Continuously monitor throughout interview for signs (verbal and non-verbal) of emotional distress.

<b>Review Period</b>	Annually
----------------------	----------

<b>Reviewed By (Supervisor)</b>	<b>Date</b>
  Prof. Ian W. Maynard	01/05/2010

Appendix A: Ethics Approval for Study One

Participant Information Sheet



Sheffield Hallam University

**Faculty of Health and Wellbeing Research Ethics Committee**  
**Sport and Exercise Research Ethics Review Group**

**Participant Information Sheet**

<b>Project Title</b>	Factors underpinning elite football officiating: Perceptions of English Premier League referees
<b>Supervisor/Director of Studies</b>	Director of Studies: Prof. Ian W. Maynard Second Supervisor (1): Dr. Joanne Butt Second Supervisor (2): Dr. Peter Olusoga
<b>Principal Investigator</b>	Mr. Liam A. Slack
<b>Principal Investigator telephone/mobile number</b>	0114 225 5368 / 07832 979 491

**Purpose of Study and Brief Description of Procedures**  
*(Not a legal explanation but a simple statement)*

Here at the Centre for Sport and Exercise Science at Sheffield Hallam University, we are currently looking to conduct a study exploring performance excellence within elite football officiating. With both the Football Association (The FA) and Professional Game Match Officials Limited (PGMOL) aware of the research, we attempt to identify the salient factors perceived to underpin performance excellence in elite football officiating.

Specifically, this will involve gaining the accounts of *'Select Group Referees'* (a panel of referees appointed to officiate within the English Premier League) in determining factors considered crucial to perform at the highest domestic level. Identifying salient factors is anticipated to contribute significantly in many officiating areas. Most importantly, the successful progression of elite football match officiating performance and the development of prospective match officials projected for the elite-level.

To help carry out this research I request your assistance in completing an interview which will take approximately 40-90 minutes. Your participation in this research project is voluntary, you do not have to answer any question should you choose not to, and are free to withdraw at any time without prejudice. I hope, however, that you will find the time to help as the findings from this research will enhance our understanding of performance excellence in elite sport officiating.

In addition, the responses you give throughout the interview will be entirely confidential and will only be seen by the team of investigators directly involved in

the project. Furthermore, this project has been approved by the Faculty of Health and Wellbeing Research Ethics Committee at Sheffield Hallam University.

For further information about the research, or information about your rights as a participant, you can contact Liam Slack who is the principal investigator on this project. His telephone number is 0114 225 5368, or you can contact him by email at [liam.slack@shu.ac.uk](mailto:liam.slack@shu.ac.uk). I greatly appreciate your assistance with this project and we wish to thank you at this point for taking the time to help.

Best regards,

Liam A. Slack

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the Faculty of Health and Wellbeing Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.



Appendix A: Ethics Approval for Study One

Informed Consent Form



Sheffield Hallam University

Faculty of Health and Wellbeing Research Ethics Committee  
Sport and Exercise Research Ethics Review Group

INFORMED CONSENT FORM	
TITLE OF PROJECT: Factors underpinning elite football officiating: Perceptions of English Premier League referees	
The participant should complete the whole of this sheet himself.	
Have you read the Participant Information Sheet?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
To whom have you spoken?	YES/NO
..... Do you understand that you are free to withdraw from the study:	
<ul style="list-style-type: none"><li>• at any time</li><li>• without having to give a reason for withdrawing</li><li>• and without affecting your future medical care</li></ul>	
Have you had sufficient time to consider the nature of this project?	YES/NO
Do you agree to take part in this study?	YES/NO
Signed ..... Date .....	
(NAME IN BLOCK LETTERS).....	
Signature of Parent / Guardian in the case of a minor	
.....	

**FOR USE WHEN STILL OR MOVING IMAGES WILL BE RECORDED**

**Consent to scientific illustration**

I hereby confirm that I give consent for photographic and/or videotape and sound recordings (the 'material') to be made of me. I confirm that the purpose for which the material would be used has been explained to me in terms which I have understood and I agree to the use of the material in such circumstances. I understand that if the material is required for use in any other way than that explained to me then my consent to this will be specifically sought.

1. I understand that the material will form part of my confidential records and has value in scientific assessment and I agree to this use of the material.

Signed.....

Date.....

Signature of Parent / Guardian in the case of a minor

2. I understand the material has value in teaching and I consent to the material being shown to appropriate professional staff for the purpose of education, staff training and professional development.

Signed.....

Date.....

Signature of Parent / Guardian in the case of a minor

I hereby give consent for the photographic recording made of me on..... to be published in an appropriate journal or textbook. It is understood that I have the right to withdraw consent at any time prior to publication but that once the images are in the public domain there may be no opportunity for the effective withdrawal of consent.

Signed ..... Date

Signature of Parent / Guardian in the case of a minor

## ***Appendix B***

### ***Semi-Structured Interview Guide for Study One***

Appendix B: Semi-Structured Interview Guide for Study One



<i>Date/Time</i>	
<i>Location</i>	
<i>Participant</i>	

*Factors underpinning football officiating excellence:  
Perceptions of English Premier League referees*

Participant Reminders

- Thank you for agreeing to participate and taking the time to talk to me today. The purpose of the study is to identify factors underpinning football officiating excellence. We are attempting to do this by interviewing 12-15 'Select Group Referees' and gain an insight into your perceptions within elite football officiating.

Experiences, Factors, Challenges, Demands,

- Hopefully the interview will last approximately 40-90 minutes and be digitally audio recorded in order to allow the information to be transcribed verbatim, analysed and publicised at a later date.
- All thoughts and comments made throughout the interview process will remain strictly anonymous and confidential (i.e., all names mentioned will be replaced with pseudonyms).
- Participation is voluntary, you do not have to answer any questions you don't feel comfortable with and can withdraw anytime throughout its entirety.
- No right or wrong answers!! Just gaining your thoughts and views - feel free to take your time answering each question. If you don't understand any of the questions please let me know!
- I may take notes and may cut you off if I feel we've gone off track.
- Any questions before we get going?

- Demographics (start tape)

Age:	
Games/Years of Elite Refereeing Experience:	

---

## Section 1 - Introduction

- **Firstly, what is your background in football refereeing?**

*Elaboration Probes:* What age did you begin refereeing?

How did you become involved?

Total experience officiating?

- **Can you talk to me about your current role now as a Select Group referee?**

*Probe:* Competitions/successes/weekly schedule

---

## Section 2 - Identifying factors

- **Can you talk to me about your experiences during this time (elite-level)?**

*Elaboration Probes:* Can you describe any challenges you have faced?

Can you give any examples... On-field/off-field?

Have you ever had any unfavourable (less positive) experiences? Tell me about that.

Tell me more about your personal attributes that have helped you throughout these experiences?

*Clarification Probes:* I'm not sure I understand what you mean by that (experience)?

Can you just go over that again?

*General Probes:* Before we move on to the next question in the interview are there any other experiences you can think of that stand out?

- **Talk to me about the factors that set you and the Select Group apart from lower level officials?**

*Elaboration Probes:* Specifically, I'd like to narrow it down to mental factors. For example, you've pointed out ...

What do you consider are vital mental factors needed to perform your role at the elite-level?

Can you give any examples during your performance?

*Prompt:* - Mental factor, why do you feel this is an important attribute?

*Clarification Probes:* I'm not sure I understand what you mean by that (mental factor)? Can you expand on that a little further?

*General Probes:* Are there any other factors you can think of?

If you do remember anything we can always come back!!

- **Tell me about the demands of refereeing in the English Premier League?**

*Elaboration Probes:* Can you give any examples?

Why is this demand important?

What qualities do you need throughout these testing times?

*Prompt:* - Demand, I'd like to hear more about how you handled this demand?

*General Probes:* Are there any other demands you can think of that you've experienced during your role as an elite-level official?

- 
- **What factors play a significant role in achieving officiating excellence?**

*Elaboration Probes:* Specifically, you've highlighted... Can you tell me more about why they are important?

Can you give any examples of what they do?

---

## **Conclusion**

- **Is there anything else you feel helps you perform at the highest level that we have not discussed?**

Thank you for your participation!

## *Appendix C*

### *Example Transcript of Study One Interviews*

## Appendix C: Example Transcript of Study One Interviews



### *Factors underpinning football officiating excellence: Perceptions of English Premier League referees*

**Interview (49:15mins) with Referee X at Sheffield Hallam University at 13:00pm on Wednesday 28th July 2010.**

**I1 Firstly I'd like to thank you for coming down and is much appreciated. So I'd like to start off with how you got involved in refereeing and your background in refereeing?**

R1 I was an ex-player played for Newcastle and Sunderland football academies, separately obviously. My Dad's a referee so when I was 14, Newcastle got to a final, club got to a final, school got to final, and county got to a final and just got bored.

**I2 What age was this?**

R2 13/14ish

**I3 Right, ok.**

R3 So the intention was to have a year away and do nothing and in that year I did my referees course with the idea of getting some pocket money for six months. The intention was to go back to playing but I never really went back. I wondered that if my Dad wasn't doing it I would've done it but it was just to get some money as a 14 year old to spend with your mates.

**I4 So it was just to get some pocket money?**

R4 Yes, I.

**I5 So was your dad a good referee?**

R5 He referees in the Football League so he's still in the Football League at the minute, so at the time he'd be refereeing at the Conference at this time. So he's in the Football League now.

**I6 So how did it progress from there then?**

P6 I did my referees course and then did two years at juniors because you can't do adults football until your 16, so I did two years of kid's football and then just progressed through the same channels as everybody else really.



**I7 So what did you enjoy about refereeing at the beginning?**

R7 It was something different, as opposed to just playing and being part of a team and playing for decent teams. You were on your own a bit and at that age it taught you to stand up and be counted because there's no hiding place, particularly at 14. For me there's a gap when you start as a youngster there's no hiding place and when you get to this level that where talking about there's no hiding place. But in the middle you can drift a little if you want too. Whereas at 14, and although you're doing junior football you've got the parents so there's nowhere to hide.

**I8 In terms of a hiding place, what do you mean by that?**

R8 It's just that when you're a young lad it can be quite daunting to have 22 players but then you've got 50-60 parents. And whatever you do in this line of work you're only going to please half of them no matter what you give. If it's a throwing or a penalty or anything in between, you keep the reds happy or you keep the blues happy you can't keep them both happy. So it teaches people, well it taught me to stand on your own two feet and to go for it. The scale where we are at now there's no hiding place as you're in the public eye so I think you can't do what a normal person could do and if you get anything wrong which is going to happen. Everybody knows about it because it's on the back of the paper, or it's on Sky Sports News. So I say initially it was a chance to stand up and get some pocket money and move up the ladder a bit.

**I9 So let's talk about your current role now, where are we at?**

R9 So I've just been promoted full time to the Select Group to the Premier League so I start officially as of Sunday the first of August.

**I10 Congratulations.**

R10 Thank you. Cheers. So I had three years in the Football league as a referee, three years as an assistant prior to that and then into the big boys league on Sunday.

**I11 Any other successes you can think of during this time?**

R11 Yeah I refereed the conference play-off final at Wembley 2007, refereed a League One play off last year. Had my fair share of Premier League teams in cups, was appointed to a Premier League game in January whilst still a part of the National List. That was called off.

**R12 It was called off?**

P12 It was called off because of the weather, it had really rained hard throughout January so it was called off, and I'd been carrying an injury for two or three months and it turned out that I'd been carrying a broken ankle.

**I13 Really.**

R13 So that pretty much ended my season and I didn't get back until six weeks before the end of the season. So prior to that it was just the National List and got my fair share of Premier League clubs in the cup and did X a big Premier League game. So just the same has everybody else and working every Saturday game week.

**I14 So can you talk to me about your experiences now say within the Premier League and at the elite level?**

R14 What I try and do is try to take out who's involved. It is very much as if you do... Let's say the top two X vs. X obviously I've never done it myself, but it's red vs. blue and I'll be doing a friendly tonight and it'll be green vs. white or whatever it is and I try and take out who's involved. And to be fair when the game's going on and you see something and you give it and you don't have time to think... Say X, it's going to be a penalty against X... Or it's going to be a penalty against X you don't have time to think about that and you just see something and you give it and you only think about the consequences afterwards or I do anyway erm... Because of the pressure is put on by outside influences. I think I deal quite well with that stuff to be fair, you think about stuff afterwards you don't have time to think about it during a game

**I15 And why do you think you deal with that in such a way?**

R15 I don't know really... I'm an only child so I was brought up around adults and been fairly switched on from an early age and always have been. My personality is just that nothing bothers us, if you take football out of it, just in life nothing bothers us really... I'm laid back and easy going and nothing gets to us.

**I16 So in what instances would nothing get to you in terms of refereeing?**

R16 We talked about Wembley before. I'm the youngest referee to referee at Wembley, would've been the youngest referee in the Premier League, I gave the first penalty and first red card at the new Wembley but you don't think about that and it's great now because you can look back and you've got that forever. You just deal with it and I was 21-22 when I did the conference play-off final with 44/45,000 there which is the biggest one I've done by a long way, it's a one off play-off game, live on Sky, it was my first televised game which is three years ago now and I just switch off from it and go out with the mind-set that it's 11 vs. 11 and hopefully it will end up like that, and it's reds vs. blues.

**I17 Sure... So have you had any unfavourable experiences?**

R17 Yeah obviously the world we live in you only ever please half of them and you will get things wrong. The fact of life is that people who work 9 till 5 can get things wrong; the difference is that theirs isn't played out on the back of a newspaper on a Monday morning. And because of the media and press and the financial aspect of it it's played out more and highlighted more because the impact is greater. And you turn it round from the clubs point of view there's an awful lot of mind games before the game, during the game, after the game, at half time an awful lot of mind games to see what they can get because the financial aspect is massive because you're playing with people's jobs. You know managers are well paid and generally they'll walk into another one but you're playing with people's jobs.

**I18 Can you talk to me about these mind games?**

R18 Let's take the World Cup final for example, X was under pressure before he started from the Spanish because he had the Spanish in the first game, and they felt hard done to so they were under pressure. you get managers or coaches at half time who wait in the tunnel for you and they've all seen it on the TV, all seen it on the DVD, this is a penalty appeal, you know X we've seen it and it's a pen, X it's a pen and 9 times out of 10 no one's seen it at all. But they want to know what they can get, they want to see if

they can put pressure on you for the second half, so you have one coach saying he's seen it on TV and another coach saying that he hasn't he's lying. So there just trying to get something and the other is trying to stop them from getting something that they don't deserve. But you know in my own mind and a lot of the other lads as well is that if it is a pen and I've got it wrong I can't change it and I got it wrong. Then if I go out and find something to give them I've then got two wrong so it doesn't equal it's self out like that, but they try to see what they can get.

**I19 So how do you deal with that interaction with the players and coaches?**

R19 I'm very much one for talking to them, I think you get an awful lot more respect off them if you tell them you've made a mistake, tell them you've fucked up... Provided you don't do it time after time after time, because it loses its impact and all of a sudden they lose respect for you. But if you turn round and say look I've got one wrong erm... it helps you in the long run because they'll accept it because when you turn round and say no I think I'm right they know they won't accept it if you're wrong. I'm very much one for talking to them you know I'll talk to all 22 of them if they want to talk.

**I20 How do you talk to them for example?**

R20 How they want to be talked to, I'll swear with them if it helps me control them, you've got to be very careful who you say it to and what you say to, but players are not massively educated people and the banter that they may have as a group having been in football clubs it's fucking this, and fucking that... So you can talk to some players and say 'is it fuck' and they react to that and respond to that but you have to be very careful who you say it to and who you speak to and what you say. They swear at you so you can swear back it's not that they're swearing at you it's just banter.

**I21 Is it knowing their personality and stuff like that?**

R21 The likes of, there are players without going into any names are like fucking this and fucking that, others are educated people that swear and other don't swear, so it's knowing the person you're dealing with and what you can say to them and knowing what they can say to you. It's banter for me as opposed to talking to them, it's having a crack with them and if you can have that then it helps you control it generally.

**I22 Moving on then, what factors set you and the Select Group apart from the Football League officials?**

R22 Everybody in the Football League can referee because you wouldn't be refereeing at that level if you couldn't. The 16 of us in the Select Group are deemed to be slightly above them and that could be for a variety of reasons. For me I talk to the players and gain the respect of the players, if I think I've made a mistake I'll tell them that. And as I've said before they'll accept that if you get the odd one wrong but if you say you think I'm right they won't believe that. So if you can get that with the players and management you'll very rarely have a big barney. If you do have a big barney your marks reflect that. There are always expectations to getting good marks when clubs like you and players like you. You don't get pushed as much, but you get more exposure because you get bigger games because you get bigger games it goes full circle. You do a big game in the Premier League like the likes of X or I do a big Championship game live on TV a week after I go somewhere else there's 22 players who've watched you on TV a week before and straight away they trust you to referee it. It's very much building up the respect that you have two ways and the players will trust you, if the players trust you then your laughing because you're allowed to get things wrong providing that they're

small things and not very regular, then players will trust you to referee and if you get that your laughing.

**I23 Can you talk to me about other factors?**

R23 Obviously age is a factor and it does help but my argument is that I have to put myself in them situations for them to say yes were going to take him and thankfully I've done that. It's difficult to say factors because what I'm good at other people won't be good at, and what others are good at I won't be good at. I like to think that I talk to them but technically referees on the Select Group will be way better than me technically. So I think everybody's got things that they are good at and it's just trying to find a combination of all of them so you can handle the 22 and that they trust you.

**I24 Yeah... A few referees have mentioned being able to keep focused while under pressure what do you think about that?**

R24 It is a mental thing as well as a physical thing because obviously the more tired you get as you will know more than I will, the more tired you get the harder it is to concentrate... Pressure doesn't get to me an awful lot because as I've said nothing bothers me, nothing seems to bother me in life... And I do try and go back to that 11 vs. 11 thing and it's just reds vs. blues. But it can be an intense atmosphere at times say from when you get there at 12-12:30, if it's a big game you can just sense it's a different atmosphere, you know if you go for a play-off game at the end of the season you could've had the same teams 7 days beforehand and the whole atmosphere is just totally different. It's something that you can sense, everybody's a little more eager to win.

**I25 Are these pressures something that you thrive upon?**

R25 I. I love it me... I would much rather go out and do a top of the table clash in the Premier League or Championship as opposed to 12th vs. 14th in League Two. Bored is the wrong word, you've got to be switched on for 90 minutes you cannot relax. I'd say bored is the wrong word but it goes down that line that route that you can't switch off because there's too much at stake. I love it me when the atmosphere is lively and really noisy.

**I26 So how do you think you deal with these challenges?**

R26 I think a lot of it comes from inside you, I think intrinsically if you're alright to deal with this pressure people like Ian can develop it. But I think if you're someone that goes into your shell and don't thrive on that then yes people like Ian can help you but not as much as you can help yourself. Say for me I love it and I'll work on my concentration techniques to help me so that I don't switch off because I find it a lot easier because I like the atmosphere and like doing things like that but other people don't.

**I27 Why do you think that is?**

R27 I don't know? It's just the type of person I am. I don't know... I'd rather do something that mean's something... I guess it's got to mean something... It's not that 12th vs. 16th in League Two doesn't mean something it's just that 1st vs. 2nd in the Premier League or 1st vs. 2nd in the Championship means more than that in terms of everything I think when something's important and something's riding on the game you've got to be on your game and that just suits my personality I'd rather do that.

**I28 Do you think that is a factor to get to the top?**

R28 It definitely helps, like I said if you can thrive on that environment... Because you can't go out to any game lackadaisical and you've got to be switched on and everything but if you can turn it up a notch when you need to I think that helps. Nothing seems to bother us in life... I love that atmosphere when you know you've got to be there.

**I29 Ok. you've mention dealing with the pressure are there any other mental factors you can think of that you need to perform at the top?**

R29 I think you've got to be able as much as you say you love the atmosphere and love the crowd you've got to be able to switch off from that at times... Because you might go to Old Trafford and 72.500 out of 75.500 support one team so you get 72.500 shouting at you and at the same time it can become very easy to give in, and you've got to have some will power and some strength in yourself to trust what you see. And if it's not what the 72.500 want then so be it. You've got to trust yourself and have faith in your own ability that you're alright. Because you should be in the best position, should have the best angle of it and you've got to have faith in yourself and give what you see and not what I think I see.

**I30 So how do you maintain that faith and that self-belief?**

R30 It's difficult at times... Because we've all made mistakes. Player reaction will tell you if you're wrong, they'll question things but if someone is questioning you 5 minutes later at that level of football they don't do it. And if there still doing it 5 minutes later you tend to think I've got one wrong and it's then knowing that I've got one wrong 5 minutes ago I can't change it. I can't go back and say it's not a goal anymore... You've then got to make sure that you don't go into the realms of not getting 2 wrong, 3 wrong, 4 wrong. For me it's just a case of wiping it out you know clubs will do what they want to do in terms of the media, assessors will want to do in terms of do what they have to do... But you've got to just forget about it and start again.

**I31 Can you talk to me more about how you go about wiping things out?**

R31 It is difficult and it was difficult the first time it happened to me... It was a game on TV about 18 months ago and I gave a penalty. Now at the time I know it's a penalty at the time and where micro phoned-upped and it was live on TV. And so I was talking to the 4th official, so every time I asked him about the penalty he never responded but then I've asked him about something else and he's responded straight away. So I start to think there's something here and it affected us the first time because it was the first time it had happened and I didn't know how to deal with it. So I sat down and I watched it and it wasn't a penalty. I got it wrong. But you sit down and think about it and work through myself and if I get it wrong and which obviously I had done at the time. If it affects us the next 5 or 6 minutes I get a free kick wrong or a throwing wrong which are small in the grand scheme of things it's going to let the penalty get to us. If I can just switch off from that and put it to bed I can't change it. Hopefully then the free kick won't be wrong the throwing won't be wrong. The players will look at it and say he's got a penalty wrong, and you look at it in the grand scheme of things and straight away you've got a free kick wrong and a throwing wrong and then the players will start to lose the faith in you and the trust in you. so you've got to just put it to bed and think I can't change what's happened I need to just move on and get the next one right and the one after that and the one after that. Because that's how you get the trust back and how you get the respect back.

**I32 Just to go into more depths about something you said there... How did it affect you?**

R32 On the day... At the time I was convinced it was a penalty and then a couple of players asked and thought it was harsh and wasn't hand ball. And at the time I needed to know, I needed to know of sky. Because through TV, Sky decides whether you get backed or not or you don't. If Sky says it's a penalty then you'll generally get backed on it if Sky says it's not a penalty then you're screwed. So I needed to know in my own head is it a penalty or isn't it. And every time I spoke to him he didn't give an answer and straight away he'd come back with something totally different and started to put doubts in my mind.

**I33 And this is during the game?**

R33 Yes during the game... It's something... I don't do it now, not even interested in that now, but at the time I needed to know so I'm asking over the microphone what's Sky saying? What's Sky saying? But he wouldn't come back to us, so something's wrong here. So the system in terms of marking straight away your thinking I'm now going to get a 59, so what is that going to do? so that means my average is going to drop this much and I'm now going to drop down in the table 3 or 4 places or lower and that's means next week I'm not going to be able to referee such and such and it just goes on. So you've got all these things running around in your head and then in the mean time you're getting things wrong as the game's going on because you're not concentrating. So now I just switch off from it and I'll find out after the game if I got it right or wrong. Because if I get one wrong I'll lose X number of marks but if I get another one wrong I'll lose just as much again. So I just try and switch off from it not look into it.

**I34 Does the marking system play a role in your performance at all?**

R34 No. Not anymore, it didn't at the time. My only concern was that you're going to get this mark and how will that affect my future appointments erm... But there was very much a scare factor in the assessment scheme that we had but to be fair that's changed for this season. But there was a fear factor that you were going get a 59 and that's a mark that nobody wants.

**I35 What was that fear like?**

R35 It was after games because you don't find out straight away. So somebody will come in a say I need to look at something so there's a fear factor from then until you get a phone call 24 hours later and there's that fear because you're sitting waiting on tenterhooks waiting to see what the answer is. But during the game not really... I've not been in this situation myself but if it's the last game of the season and you're in with chance of refereeing an FA Cup final you may go out and think I can't go out and get a 59. Or somebody's on the cut-off point of getting removed because of their marks and they know they need an 80. So that will be in there head knowing that I need this, I need this I can't afford a 59 or a low mark. It bothered us that day at Nott's County because I started thinking about that this could be the first one I have and it was the first one I had. So you're starting to think what impact this could have in regards to the future. But at the minute it hasn't...

### **I36 What do you think enables you to like you said wipe things out?**

R36 I just sat down because we get a DVD of every game, I tend to watch individual incidents but I watched that game all the way through because it was the first time I got it wrong and it was live on Sky anyway. So I sat and watched the game through and assessed how I did after that penalty. And the next 10 minutes I got three or four wrong and in the grand scheme of things there nothing decisions like the throwing on the half way line that nobody really cares about to be honest player-wise but for me it was my self-pride alright I got the penalty wrong and nobody cares about the throwing but it was still wrong the free kick was still wrong the corner kick or the goal kick was still wrong. And I just sat down and thought well I got one wrong so you've got to try and sort it yourself, so I'm going to put it to bed now I can't change it I can't go back and say it's not a penalty anymore and give a corner... It's done.

### **I37 Can you talk to be about this self-belief that you mentioned in terms of how you referee at this level?**

R37 You've got to have something about you, I. you got to have trust in yourself and trust what you see as opposed to what 15,000 people want you to see. Obviously I've mentioned the players respect before and the players trust. If you don't trust yourself then there's no chance of them trusting you because they pick up on it. They pick up on everything, they know who you are so, so they know everything you've done in the past six months, they know the last game you did, they'll watch the DVD's, they'll watch you when your meeting with the police, they'll watch you watch you in your room because they want to know or see if they can get anything. And if they know it's not going to work and you've got that trust that you've got to build up ermm... You've got to have the self-belief in yourself because if you don't believe in yourself then they're not going to believe in you.

### **I38 So how do you think you build that self-belief?**

R38 I think it is just performing well yourself, I don't think anybody's particularly born with it personally. but if you can say right I've had three years in the Football League and go through that period and go out and do a top of the table Championship game and there's no fear, you know you can control the game, you know you've got the respect of the players, and it's a gradual thing that every game you do, you become more confident in yourself so your self-belief in yourself and how you control the game improves. And because I can do this it comes across as confidence and players...if you comes across confident in life people believe it. And when you give a decision and your confidence or appear confident players believe it, so when you show some type of in decision you might get the decision right but the players don't believe it. If you've got that self-belief and you're confident to do it and you portray that then your 75% of the way there.

### **I39 You've mentioned a few mental factors are there anymore you need to referee at the elite-level.**

R39 As I said you've got to have trust in yourself and the players need to trust you, it's got to come from within first. If you trust yourself you've got to realise that players aren't just going to trust you straight away, you've got to earn that trust. And when you get there or if you get there your just about there...you can get away with...Get away with is the wrong phrase... They will allow you one or two wrong because the players trust you that you'll get 99.9% of them right. So it's just building that up.



**I40 Do you think that will happen again now you've moved into the Select Group?**

R40 Yeah, definitely, obviously... I done 12 of the Premier League teams in the cups in the past 2 or 3 years... You do a lot of 4th officials in the Premier League or have done in the last year or so, done quite a few TV games. So when you turn up its not so much that they know you, it's that they know your face which is a help. I'm going to go from the top of the Football League or pretty much that area where everybody trusts you to the bottom of the Premier League and you've got to build all that up again. So you have got to start again to some degree yeah.

**I41 So how do you think you'll go about building that trust again?**

R41 I've got to trust myself and I've been fortunate that I haven't been thrown straight into the Premier League you know I've been eased in with the 10-12 Premier League games that I've done and there's decent management of young referees to be fair so it's that you've got to have self-belief and trust yourself that you can do it at that level.

**I42 So can we go further with this trust then...what do you think it is?**

R42 It's a belief that you'll get things right, so you got 90% of the crowd wanting you to give one decision and you've got to believe in yourself is what you give is what you see and don't give what people want you to give. It's that self-belief we've mentioned before.

**I43 Interesting...**

R43 Its self-belief and trust in your own ability that you'll get 99.9% of them right and you'll not get them all right it's impossible. But trust yourself that you'll get them right, and trust of the players and managers and media helps as well.

**I44 And if you get a big one wrong what happens then?**

R44 You've got to switch off, as I said for the whole 90 minutes for me I've got to switch off from it, I can't change it I can't go back and turn it around. Afterwards is different because you can sit down and think why did I get it wrong, was I in the wrong position, was I too narrow, the important bit for me is to figure out why I got that wrong so that the week after it doesn't happen again, but for the purpose of 90 minutes you've got to knock it on the head. Because you can't do anything about it.

**I45 So can you talk to me about after the game and what happens then?**

R45 The managers will say whatever they want to say, the mangers will often say one thing to you and in the public they'll say something totally different. Because it's public perception they come out... They might have been battered 5 nil at home, but I didn't give them a penalty at 1 nil you've cost them the game and they'll come in and say look X I've seen it and I still thinks it a penalty but that's not the reason we got beat. And they'll go out to the media and say we didn't get a penalty it changed the game and that's why we got beat. You've got to understand that's part of their job and self-preservation from their point, you know they've got a job to do and there trying to keep that job. In terms of the media they'll write what they want right... They either like you or they don't you can't control it, it's like giving a decision that you know is wrong. So you don't worry about it, if they're going to write you up there going to write it anyway.



**I46 Interesting... Let's move on, so can we talk about the demands of refereeing in the Premier League or with Premier League teams?**

R46 Erm... The physical part is obvious at times... I think it's slower in terms of it goes right-back, centre-half, centre-mid, left-back, right-back, centre-half. And the build-up is slower, but when it does go forward it's like that (clicks his fingers) it's so much faster the actual forward bit, but the build-up is all about moving the other 11 around so we can get the space and when they get the space because they're so disciplined in terms of you get the space you've got to attack it because if you don't the other teams back and you have to break them down again. So I think the build-up is a lot slower, it's the final 30-40 yards and that's the fast bit. You've got to have an understanding of, you've got to have an understanding... Dive's is the wrong word. But they exaggerate contact more ermm... We keep saying it's a continental thing which it's not. I was a continental thing but it is now part and parcel of our game and we do it just as much as the foreigners do it.

**I47 So how do you go about combating that then?**

R47 I talk to them... You know I tell them during a game you know play on, stand up, say if someone's nipping your back I'll just shout at them and say play on, play on, and because they can hear you they try and play. The difficulty comes when players will go down when they feel contact and the player that has made the contact expects you to give a foul. And what you tend to do is you give them what they expect, so if somebody goes down and the defender puts his hands up and says sorry ref you may not think it's a free-kick but you give it because everyone expects you to give a free-kick.

**I48 Is that one of the main difficulties you would say?**

R48 You're not refereeing a game I don't think, I think your controlling an event and your managing expectation. Often at this level and at the Championship you give what they expect you to give.

**I49 Why do you think managing expectation is such an important demand?**

R49 If I go back to the trust... I keep coming back to the trust thing but if you're a defender who fouls me and the referee doesn't think it's a free-kick but you go sorry ref, if I was a referee I would give a free kick, because the expectation of you as a defender and me as a forward there going to think it's a free-kick. So if you give it then it's a free kick. It might not actually build the trust up but if you don't give it, it will knock the trust away. Again it's a continental thing that we now do, you know, you... You manage and give them what they expect to some degree, and you're talking about free kicks on the half way line, you're not talking about big decisions you've got to give what you see and believe what you see. It's like giving free-kicks on twenty yards from their own goal when there attacking it's a nothing decision on the half-way line, it's a nothing decision. You give them what they expect and you know...

**I50 Would that have a greater benefit throughout the game?**

R50 Yes... Because you're controlling an event as opposed to refereeing a game, if you give daft things... If you're giving loads of decisions against team A and everything's going against team A. So obviously everything's going for team B, say a throwing goes out on the half-way line and you haven't got a clue which way it is, so sometimes you give it to the team that's had nothing because it shuts them up for a bit. And if you give it to the other team, you know it's to them it's something else against them and it's

another thing against them. It's a throwing on the half-way line that nobody cares but it's another thing against them and the other team might be whinging but I'll tell them that I gave them something just to shut them up for a bit. It's controlling the event a lot of it, is where in the Football League you're actually refereeing a game in the Premier League where you're giving them what they expect. But it's a close knit community, and people say that players and referees don't like each other it's not like that at all, the players look after their players first and foremost but if you're in that group you all tend to look after each other at the same time. Like I said you're managing an event and trying to control people.

**I51 Is this something that is specific within the Premier League compared to the Football League?**

R51 If you think of the top seven teams playing Europe but the teams at the bottom have international players and what where doing now is giving continental free-kicks when there is contact and people go down with the expectation of getting a free-kick...So even when you go to X, X got promoted last season and we've just come up... and the likes of X and X you know who have been to the World Cup and all that and you give them a decision because its excepted on their continent. So if you watch the likes of X, X, X in Europe they go down and get free-kicks in Europe and they would never dream of going down in this country. But the expectation and because it is such a continental game and a worldwide game now everybody's sees what goes on and there's Englishman trying to get free-kicks, where trying to buy free-kicks now. Because we know we can get them

**I52 So like your man-management skills and stuff like that...is it almost like team management skills as well like?**

R52 I. I mean I talked to the players all the way through and you give a soft free-kick and somebody says ref that's soft, I'll tell them I totally agree with them but you'll get the same one and you'll want it yourself. And they accept that and I did a behind closed doors game yesterday at X and I gave a really, really soft penalty but it's still a foul and still a penalty. And X who plays for X said X that's soft that and I said I agree with you but you'd want it up there and he said fair enough. So your managing it and if you're honest with them and open about it then there alright.

**I53 Any other demands a part from dealing with the cheating?**

R53 That's your words not mine....

**I54 Ha-ha... Ok pushing the boundaries?**

R54 Obviously you've got to... The demands for me are now to trying to build that trust again. The physical side is obviously different you're controlling an event and the worldwide pressure, you do a Premier League game and it's watched by millions on a Sunday afternoon and millions of people are watching and if the pressures come before and afterwards for me, the 90 minutes is the easy bit. It's all about dealing with TV, dealing with police, dealing with safety erm... Dealing with what goes on in the media afterwards... But you can't control that so I try not to get too worked up about it.

**I55 Ok... So can talk to me about how you deal with that sort of pressure before and after the game?**

R55 If it's a televised game in the Football League there's not so much difference whereas if it's a normal kick-off on a Saturday at 3 o'clock and you kick-off when

you're ready whereas when its TV you kick-off when Sky tell you to kick-off, you walk out the tunnel when Sky tell you to walk out of the tunnel and for me it doesn't bother me, because if I'm ready I'm ready to go, but there's other referees who I've worked with who they need to come in 8 minutes to kick-off, they need to listen to one song that lasts three minutes and if Sky say we'll walk at 8 minutes too they shit themselves because they can't listen to their song. And that's not just in this country that's just how some refs prepare for every game. If they want to prepare for every game like that then go do that... For me it doesn't bother us. If they tell us to go I'm generally ready. I've matured a lot in the last couple of years in terms of like the media... Nothing bothers us anymore because you can only control what you can control and they're going to write what they're going to write.

**I56 Did you take it personally like?**

R56 I did I. once... I got battered in a paper...In fact I got battered in every single paper... This time last year about 15 months ago. I sent the keeper off it was at Birmingham and it was the second last game of the season. And if they won they went up and I sent the keeper off and gave a penalty for a challenge outside the box that isn't a foul, so everything that could've gone wrong went wrong. And it was outside the box and he falls miles in and looks a foul and is not... On the bank holiday and on the Tuesday I got battered in every single paper, so I went to the shop and went and bought The Sun, got battered in there and went back to the shop and bought The Guardian got battered in there and I ended up buying the whole lot... And I sat and read them all and said what am I doing? I don't even read reports of my games anymore because there's no point...They're going to write what they're going to write... And you're either right or you're wrong and you know that yourself so it doesn't matter what anybody else says, so why read it.

**I57 Is that the self-trust you were talking about earlier?**

R57 Yeah...you got to trust yourself on the pitch and if you get things wrong you've got to for me look to why you got it wrong not just its wrong and hope it doesn't happen again next week. But why I got it wrong and make sure it doesn't happen next week. But for me what's the point, I don't do it anymore and I know quite a few that read all the papers... But why? If they don't like you they don't like you, if they think it's wrong they think it's wrong and they're going to print that. They're not interested in trying to be nice people they're trying to do their job as well.

**I58 And how do you go about not getting it wrong in future?**

R58 We get DVDs to look at, where I went wrong, did somebody block my view, which happens but then you've got to look at why did someone block my view and then there's always an exception that sometimes you just can't do anything at all. But was I too narrow, was I too wide, did I not get there fast enough you, just got to look at why you did it and there's all sorts of reasons and what you've got to make sure is that it doesn't happen again next week because you've put it right. For me the only problem is that I wouldn't have a problem well I would but it wouldn't bother me if I got one wrong because I was too narrow or I got one wrong the week after because I was too wide, or I got one wrong a week after because I wasn't there fast enough. I would have a problem is week after week I was too narrow, too narrow, too narrow. As long as you're not coming up all the time with the same problem it won't stop your development.

**I59 And do you think that is a factor and played a role in your development to the top flight?**

R59 If you keep making mistakes you're not going to stay there and it comes back to that trust in yourself and of the players but ultimately you got to get things right otherwise you're not going to get there. So just sitting down after the game and make sure it doesn't happen again the week after and you'll be fine.

**I60 Lastly, you've mentioned a few people who have helped you on your way? Can you talk a bit more about that?**

R60 There's a few, my Dad obviously because he goes through what I go through every week.

**I61 And how has he helped you?**

R61 He's really good he's my biggest supporter in public, in public he'll defend us to a hilt but wherever I go wrong he'll tell us, if I go wrong somewhere he'll tell me I was wrong as I would with him.

**I62 What even at 14?**

R62 It's good to have somebody in the position and not a normal son and father relationship because he does the same job as I do. So he knows about the pressures, so he's obviously a massive one. My coach is good because he's refereed the Premier League circuit and he knows the pressures and what he says is quite good and he's switched on. He's good because he doesn't just tell you to do something and do it because it doesn't work. Because what would work for you wouldn't work for me and vice-versa he says try this and out of the things he's tried I've probably taken on 50% because some of it doesn't work for me. So they'll be the two main ones.

**I63 Anybody else?**

R63 There the two main ones to be fair, the Football League have been spot on to be fair and X at the Premier League has been spot on since he took over and so was X before that to be fair. Management is... If you don't do your bit then you don't deserve that support to be fair.

**I64 Can you talk to be about that support?**

R64 Not so much a constant thing... If you're going through a bad time you've always got someone to talk too. It's not so much you get constant contact but if you wanted to ring X at the Football League or Mike they'll sit down with me and talk me through it and reassure your mind if you need that. It's not something that I've taken up at great deal of time with it's just knowing that if you need it and want it it's there.

**I65 Any examples?**

R65 As I've said my Dad's the main one and X my coach because they'll tell you how it is. And they'll both support you if you need support in public or the management but they'll also tell you if you made a mess of something.

**I66 Is that something you needed throughout your time for someone to tell you hey you messed up there... And take that?**

R66 I. you've got to have it within yourself to take that criticism or development points!

**I67 I like that.**

R67 I've heard it too many times. If people keep telling you, you need to do that, you need to do this; you got to try it to see if it works and it might not work but you've got to try it. Like I said the fact that X and my Dad have gone through what I've gone through on a Saturday afternoon they understand and you believe it more because they know what they're talking about. If I pop round to my Dad's I might bring round the DVD and talk to him about it if there's something to talk about. X my coach comes to about 10 games a year because he's got six, so comes to about 10 games a year and gets a copy of all my assessments and if something comes up time and time again and we'll have a look at it. With X it's on a weekly basis and to be fair it's like that with my dad as well. So it's alright.

**I68 So finally is there anything else that you think we've not mentioned as to why you and the Select Group make it to the top flight?**

R68 You've got to have a lot of luck to be fair along the way and self-belief and just trust in yourself, and to get to the top of any profession you got to have some luck somewhere down the line. But you've got to have the ability at the same to put yourself in that position and I'm one of them people that think you make your own luck and if you put the effort in.

**I69 Thank you very much for helping out.**

R69 No problem at all.

**I70 Thank you.**

**(Word Count: 8,642)**

**(Pages: 14)**

## ***Appendix D***

### ***Ethics Approval for Study Two***

*Application for Ethics Approval of Research*

*Risk Assessment Pro Forma*

*Participant Information Sheet*

*Informed Consent Form*



## Appendix D: Ethics Approval for Study Two

Application for Ethics Approval of Research

### CONFIDENTIAL



*Sheffield Hallam University*

**Faculty of Health and Wellbeing  
Research Ethics Committee**

**Sport & Exercise Research Ethics Review Group**

### APPLICATION FOR ETHICS APPROVAL OF RESEARCH

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Sport and Exercise Research Ethics Review Group before approving a project. **ALL** of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

<b>1) Date of application</b>	March 2011
<b>2) Anticipated date of completion of project</b>	February 2012
<b>3) Title of research</b>	Understanding mental toughness in elite football officiating: Perceptions of English Premier League and League referees
<b>4) Subject area</b>	Sport and Performance Psychology
<b>5) Principal Investigator</b> Name Email address @ SHU Telephone/Mobile number Student number (if applicable)	Liam Andrew Slack liam.slack@shu.ac.uk 0114 225 5368 / 07832 979 491 B20002333
<b>6) State if this study is:</b> (If the project is undergraduate or postgraduate please state module name and number)	<input checked="" type="checkbox"/> Research <input type="checkbox"/> Undergraduate <input type="checkbox"/> Postgraduate Module name: Module number:
<b>7) Director of Studies/Supervisor/Tutor name</b>	Director of Studies: Prof. Ian W. Maynard Second Supervisor (1): Dr. Joanne Butt Second Supervisor (2): Dr. Peter Olusoga

<b>8) Intended duration and timing of project?</b>	<b>March 2011-</b> Preparation of participant list and initial contact with potential participants. <b>April-May 2011-</b> Recruitment of participants. <b>April- Aug 2011-</b> Conduct and transcribe interviews. <b>Sept-Nov 2011-</b> Data analysis. <b>Dec 2011- Feb 2012 -</b> Write up of study.
<b>9) Location of project</b> If external to SHU, provide evidence in support (see section 17)	The research project will be conducted at Sheffield Hallam University, participants training facilities or a location of their choice.
<b>10) State if this study is:</b>	<input checked="" type="checkbox"/> New <input type="checkbox"/> Collaborative (please include appropriate agreements in section 17) <input type="checkbox"/> Replication of :
<b>11) Purpose and benefit of the research</b> Statement of the research problem with any necessary background information (no more than 1 side of A4)	
<p>When attaining performance excellence in sport, considerable attention has been directed towards the concept of Mental Toughness (MT), internationally acknowledged as an indispensable psychological component (Gucciardi, Gordon, &amp; Dimmock, 2008). However, preceding Jones and colleagues' (Jones, Hanton, &amp; Connaughton, 2002; 2007) seminal investigations, this knowledge-base spanning over five decades had remained relatively descriptive, equivocal, and deficient in empirical research procedures (Connaughton, Hanton, Jones, &amp; Wadey, 2008). Consequently, during this period, MT was regarded as an all-encompassing term associated with a multitude of positive psychological characteristics and varying definitions.</p> <p>It is important to note, a limitation concerning this literature is that it is still relatively representative of the athletic domain. Indeed, Crust (2008) called for further research to examine performers in a range of sporting contexts in an effort to gain additional understanding of MT. As previously discussed and central to this athletic representation, a notable emphasis has been placed on understanding MT in elite-level football (e.g., Coulter et al., 2010, Thelwell, Weston, &amp; Greenlees, 2005). However, given the narrow focus centred on players, previous research has failed to acknowledge other performers (e.g., managers, match-officials) operating within this sport whereby MT might also be important. Further research characterising MT of non-athlete personnel who impact upon, present-day, elite football competition would broaden the breadth and depth of existing literature in this area.</p> <p>The study will broaden the breadth and depth of existing MT literature by providing a comprehensive conceptualisation of mentally tough football referees. To this end, the purposes of the present study were twofold. Firstly, to identify specific on and off-field situations perceived to demand MT in elite football officiating. And secondly, throughout these situations, to classify corresponding behaviours and cognitions utilised by English Premier League referees. An in-depth, semi-structured interview guide consisting of a series of open-ended questions will be developed. Following procedures adopted by previous MT research (Coulter, Mallett, &amp; Gucciardi, 2010) the interview guide will explore participants' perceptions and experiences of MT components. Throughout the one-to-one interviews, the principal researcher will follow the semi-structured interview guide and also account for the natural flow that may be present. In addition, elaboration probes will be employed where necessary until saturation is deemed to have occurred on a particular issue (Lincoln &amp; Guba, 1983). All interviews will be digitally audio recorded and transcribed verbatim.</p>	



<b>12) Participants</b>	
<b>12.1 Number</b>	15 "Select Group Referees"(a panel of referees appointed to officiate football matches in the English Premier League).
<b>12.2 Rationale for this number</b> (eg calculations of sample size, practical considerations)	<p>The sample size for this study will be purposefully selected (Patton, 2002) in order to provide a depth and richness to the information gathered.</p> <p>This sample size is considered adequate in order to generate sufficient in-depth data whilst taking into account the logistics and practicalities of recruiting, conducting, transcribing and analysing interviews within the proposed timescale.</p>
<b>12.3 Criteria for inclusion and exclusion</b> (eg age and sex)	All participants must be a current or retired member of the 'Select Group Referees' panel.
<b>12.4 Procedures for recruitment</b> (eg location and methods)	<p>A purposive selection procedure (Patton, 2002) will be utilised to recruit potential participants for this investigation.</p> <p>Following completion of institutional ethics approval procedures, participants will be contacted initially via phone/e-mail and invited to participate. For those who agree to participate, a letter of information outlining the intention and prospective benefits of the investigation, as well as a detailed account of participation requirements will be administered. In addition, convenient times and locations for the interviews will be agreed.</p> <p>To ensure confidentiality, an informed-consent form will be given to each participant. In addition, it will be made clear the present study will be voluntary in nature and are permitted to withdraw any time throughout its duration.</p>
<b>12.5 Does the study have *minors or ‡vulnerable adults as participants?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>12.6 Is CRB Disclosure required for the Principal Investigator?</b> (to be determined by Risk Assessment)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, is standard <input type="checkbox"/> or enhanced <input type="checkbox"/> disclosure required?
<b>12.7 If you ticked 'yes' in 12.5 and 'no' in 12.6 please explain why:</b>	

\*Minors are participants under the age of 18 years.

‡Vulnerable adults are participants over the age of 16 years who are likely to exhibit:

- learning difficulties
- physical illness/impairment
- mental illness/impairment
- advanced age
- any other condition that might render them vulnerable

### 13) Details of the research design

#### 13.1 Provide details of intended methodological procedures and data collection.

(For MSc students conducting a scientific support project please provide the following information: a. needs analysis; b. potential outcome; c proposed interventions).

In view of the relatively limited research into MT within elite football officiating, unearthing the subjective accounts of elite officials on MT components (i.e., situations, behaviours, and cognitions) in-depth interviews will be used as a qualitative method of data collection. A purposive sampling procedure (Patton, 2002) will be utilised to recruit 15 English Premier League used in an earlier study (Slack, Maynard, Butt, & Olusoga, in-press). With institutional ethics approval, a letter of information outlining the intention and prospective benefits of the investigation, as well as a detailed account of participation requirements will be administered. To ensure confidentiality, an informed-consent form will be given to each participant and it will be made clear that the study is voluntary and that they are permitted to withdraw at any time. Interviews will be conducted at the participants training facilities or at a time and location that is compatible with each participant's schedule. In both cases, the interviewer (principal researcher) will travel to the participants to conduct the interviews, or if not possible will interview via phone.

An in-depth, semi-structured interview guide consisting of a series of open-ended questions will be developed. Following procedures adopted by previous MT research (Coulter, Mallett, & Gucciardi, 2010) the interview guide will explore participants' perceptions and experiences of MT components. Throughout the one-to-one interviews, the principal researcher will follow the semi-structured interview guide and also account for the natural flow that may be present. In addition, elaboration probes will be employed where necessary until saturation is deemed to have occurred on a particular issue (Lincoln & Guba, 1983). All interviews will be digitally audio recorded and transcribed verbatim.

#### 13.2 Are these "minor" procedures as defined in Appendix 1 of the ethics guidelines?

☒ Yes      ☐ No

#### 13.3 If you answered 'no' in section 13.2, list the procedures that are not minor

#### 13.4 Provide details of the quantitative and qualitative analysis to be used

Inductive and deductive elements will be implemented to analyse the qualitative data. The content of each individual interview will be read and re-read by the team of researchers until they become familiar. Following procedures outlined by Patton (2002), and used extensively within current sport psychology research (e.g., Jones and Harwood, 2008), content analysis will be employed. Researchers will individually code raw data themes (quotes or paraphrased quotes representing a single meaningful point or thought) characterising participants responses to each question in the interview guide.

Following recommendations from Lincoln and Guba (1985), triangulation will be maintained throughout the data analysis period. Ensuring that all identified themes will be constantly scrutinised and categorised into the correct general dimensions. If there are disagreements between researchers, transcripts will be re-read and extensive discussions as well as group meetings will follow until a consensus is reached. During these discussions, particular credence will be given to the views of the principal researcher who conducted the interviews and who listened to and transcribed the digital audio recordings. In addition, the team of researchers will re-read and review the data, making sure the emerging patterns will be made intuitively and can be easily understood.

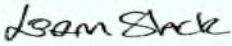
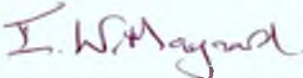
<b>14) Substances to be administered (refer to Appendix V of the ethics procedures)</b>
<b>14.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements.</b>
Please tick box if this statement applies and go to section 15) [ ✓ ]
<b>14.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.</b>

<b>15) Degree of discomfort that participants might experience</b>
Consider the degree of physical and psychological discomfort that will be experienced by the participants. State the details which must be included in the participant information sheet to ensure that the participants are fully informed about any discomfort that they may experience.
Due to the nature of the study, it is believed that the participants will not experience any physical or psychological discomfort during the interview process. Furthermore, the participants will be reminded that anonymity and confidentiality will be assured, they do not have to answer a question should they choose not to, and that they may withdraw from the investigation at any time. This information will be included on the participation information sheet.

<b>16) Outcomes of Risk Assessment</b>
Provide details of the risk and explain how the control measures will be implemented to manage the risk.
<u>Control Measures</u>
<u>Participant feeling slight discomfort in talking about their experiences</u>
All interview material will remain anonymous. Participants do not have to answer specific questions if they choose not to. Participants are free to stop the interview and withdraw from the study at any time.

<b>17) Attachments</b>	<b>Tick box</b>
<b>17.1 Risk assessment</b> (including CRB risk assessment)	✓
<b>17.2 COSHH assessment</b>	
<b>17.3 Participant information sheet</b> (this should be addressed directly to the participant (ie you will etc) and in a language they will understand)	✓
<b>17.4 Informed consent form</b>	✓
<b>17.5 Pre-screening questionnaire</b>	
<b>17.6 Collaboration evidence/support correspondence from the organisation consenting to the research</b> (this must be on letterhead paper and signed) See sections 9 & 10.	
<b>17.7 CRB Disclosure certificate</b> <u>or</u> where not available <b>CRB application form</b>	
<b>17.8 Clinical Trails form (FIN 12)</b>	



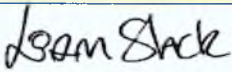
<b>18. Signature Principal Investigator</b>	<p>Once this application is approved, I will undertake the research study as approved. If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor. If the supervisor advises that there should be a resubmission to the Sport and Exercise Research Ethics Review Group, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.</p> <p> Date 28/03/2011</p> <p>Principal Investigator signature</p> <p>Name Liam Andrew Slack</p>
<b>19. Approval Project Supervisor</b> to sign <b>either</b> box A <b>or</b> box B as applicable  (refer to Appendix I and the flowchart in appendix VI of the ethics guidelines)	<p><b>Box A:</b> I confirm that the research proposed is based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore does not need to be submitted to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.</p> <p> Date 28/03/2011</p> <p>Project Supervisor signature</p> <p>Name Prof. Ian W. Maynard</p>
	<p><b>Box B:</b> I confirm that the research proposed is <u>not</u> based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore <u>must</u> be submitted to the HWB Sport and Exercise Research Ethics Review Group for approval.</p> <p>I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>----- Date -----</p> <p>Project Supervisor signature</p> <p>Name -----</p>
<b>20. Signature Technician</b>	<p>I confirm that I have seen the full and approved application for ethics approval and technical support will be provided.</p> <p>----- Date -----</p> <p>Technician signature</p> <p>Name -----</p>

Appendix D: Ethics Approval for Study Two

Risk Assessment Pro Forma

	<i>Sheffield Hallam University</i>
<b>Faculty of Health and Wellbeing Research Ethics Committee</b>	
<b>Sport and Exercise Research Ethics Review Group</b>	
<b>Risk Assessment Pro Forma</b>	

**\*\*Please ensure that you read the accompanying Risk Assessment Risk Ranking document before completing this form\*\***

<b>Title of research</b>	Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees.	
<b>Date Assessed</b>	28/03/2011	
<b>Assessed by (Principal Investigator)</b>	Mr. Liam Andrew Slack (liam.slack@shu.ac.uk)	
<b>Signed</b>	<b>Position</b>	
	Principal Investigator	
<b>Activity</b>	<b>Risks</b>	<b>Control Measures</b>
Semi-structured in-depth Interviews.	<b>Risk</b> of [Participants feeling slight discomfort] caused by [discussion of sensitive topics].  (R1= C1 x L1) <b>LOW RISK.</b>	All interview material will remain anonymous and confidential.  Participants do not have to answer specific questions if they choose not to.  Participants are free to stop the interview and withdraw from the study at any time.

**Risk Evaluation (Overall)****Low**

Due to the nature of the study, it is believed that the participants will not experience any physical or psychological discomfort during the interview process. Furthermore, the participants will be reminded that anonymity and confidentiality will be assured, they do not have to answer a question should they choose not to, and that they may withdraw from the investigation at any time. This information will be included on the participation information sheet.

**General Control Measures**

Is a pre-screen medical questionnaire required? Yes [ ] No [✓]

1. Participant given participant Information Sheet. Confirm understanding.
2. Participant reads and signs Informed Consent Form.

**Emergency Procedures**

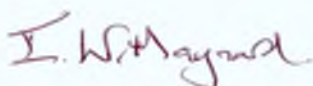
None.

**Monitoring Procedures**

Continuously monitor throughout interview for signs (verbal and non-verbal) of emotional distress.

**Review Period**

Annually

**Reviewed By (Supervisor)****Date**

Prof. Ian W. Maynard

28/03/2011

## Appendix D: Ethics Approval for Study Two

### Participant Information Sheet

	<b>Sheffield Hallam University</b> <b>Faculty of Health and Wellbeing Research Ethics Committee</b> <b>Sport and Exercise Research Ethics Review Group</b> <b>Participant Information Sheet</b>
---	--

<b>Project Title</b>	Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees.
<b>Supervisor/Director of Studies</b>	Director of Studies: Prof. Ian W. Maynard Second Supervisor (1): Dr. Joanne Butt Second Supervisor (2): Mr. Peter Olusoga
<b>Principal Investigator</b>	Mr. Liam A. Slack
<b>Principal Investigator telephone/mobile number</b>	0114 225 5368 / 07832 979 491

<b>Purpose of Study and Brief Description of Procedures</b> <i>(Not a legal explanation but a simple statement)</i>
<p>Here at the Centre for Sport and Exercise Science at Sheffield Hallam University, we are currently looking to conduct a study exploring Mental Toughness within elite football officiating. With both the Football Association (The FA) and Professional Game Match Officials Limited (PGMOL) aware of the research, we attempt to identify situations requiring Mental Toughness and the behaviours and cognitions deployed by referees throughout these situations</p> <p>Specifically, this will involve gaining the accounts of 'Select Group Referees' (a panel of referees appointed to officiate within the English Premier League) in determining Mental Toughness components considered crucial to perform at the highest domestic level. Identifying key Mental Toughness components is anticipated to contribute significantly in many officiating areas. Most importantly, the successful progression of performance excellence in football officiating and the development of early-career English Football League referees.</p> <p>To help carry out this research I request your assistance in completing an interview which will take approximately 40-90 minutes. Your participation in this research project is voluntary, you do not have to answer any question should you choose not to, and are free to withdraw at any time without prejudice. I hope, however, that you will find the time to help as the findings from this research will enhance our understanding of Mental Toughness in elite football officiating.</p> <p>In addition, the responses you give throughout the interview will be entirely confidential and will only be seen by the team of investigators directly involved in the project. Furthermore, this project has been approved by the Faculty of Health and Wellbeing Research Ethics Committee at Sheffield Hallam University.</p>

For further information about the research, or information about your rights as a participant, you can contact Liam Slack who is the principal investigator on this project. His telephone number is 0114 225 5368, or you can contact him by email at [liam.slack@shu.ac.uk](mailto:liam.slack@shu.ac.uk). I greatly appreciate your assistance with this project and we wish to thank you at this point for taking the time to help.

Best regards,


Liam A. Slack

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the Faculty of Health and Wellbeing Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.



Appendix D: Ethics Approval for Study Two

Informed Consent Sheet



Sheffield Hallam University

Faculty of Health and Wellbeing Research Ethics Committee  
Sport and Exercise Research Ethics Review Group

INFORMED CONSENT FORM	
TITLE OF PROJECT: Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees.	
The participant should complete the whole of this sheet himself.	
Have you read the Participant Information Sheet?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
To whom have you spoken? .....	
Do you understand that you are free to withdraw from the study:	
• at any time	
• without having to give a reason for withdrawing	
• and without affecting your future medical care	YES/NO
Have you had sufficient time to consider the nature of this project?	YES/NO
Do you agree to take part in this study?	YES/NO
Signed ..... Date .....	
(NAME IN BLOCK LETTERS).....	
Signature of Parent / Guardian in the case of a minor .....	

**FOR USE WHEN STILL OR MOVING IMAGES WILL BE RECORDED**

**Consent to scientific illustration**

I hereby confirm that I give consent for photographic and/or videotape and sound recordings (the 'material') to be made of me. I confirm that the purpose for which the material would be used has been explained to me in terms which I have understood and I agree to the use of the material in such circumstances. I understand that if the material is required for use in any other way than that explained to me then my consent to this will be specifically sought.

1. I understand that the material will form part of my confidential records and has value in scientific assessment and I agree to this use of the material.

Signed..... Date.....

Signature of Parent / Guardian in the case of a minor

.....

2. I understand the material has value in teaching and I consent to the material being shown to appropriate professional staff for the purpose of education, staff training and professional development.

Signed..... Date.....

Signature of Parent / Guardian in the case of a minor

.....

I hereby give consent for the photographic recording made of me on..... to be published in an appropriate journal or textbook. It is understood that I have the right to withdraw consent at any time prior to publication but that once the images are in the public domain there may be no opportunity for the effective withdrawal of consent.

Signed ..... Date .....

Signature of Parent / Guardian in the case of a minor

.....

## ***Appendix E***

### ***Semi-Structured Interview Guide for Study Two***

Appendix E: Semi-Structured Interview Guide for Study Two



Date/Time	
Location	
Participant	

*Understanding mental toughness in elite football officiating:  
Perceptions of English Premier League referees*

Participant Reminders

- Thank you for agreeing to participate again and taking the time to talk to me today. The purpose of the study is to understand Mental Toughness in elite football officiating. We are attempting to do this by re-interviewing 12-15 'Select Group referees' and gain an insight into your perceptions of mental toughness in elite football officiating.

Mental Toughness Attributes  
Situations Requiring Mental Toughness  
Behaviours  
Cognitions

- Hopefully the interview will last approximately 40-60 minutes and analysed and publicised at a later date. All thoughts and comments made throughout the interview process will remain strictly anonymous and confidential (i.e., all names mentioned will be replaced with pseudonyms).
- Participation is voluntary, you do not have to answer any questions you don't feel comfortable with and can withdraw anytime throughout its entirety.
- No right or wrong answers!! Just gaining your thoughts and views - feel free to take your time answering each question. If you don't understand any of the questions please let me know!
- I may take notes and may cut you off if I feel we've gone off track.
- Any questions before we get going?

Age:	
Games/Years of Elite Refereeing Experience:	

---

### Section 1 - Introduction

- **Can you talk to me about your current refereeing role now as a Select Group referee?**

*Probe: Competitions/successes/weekly schedule*

---

### Section 2 - Understanding personal accounts of situations requiring Mental Toughness.

- **Can you identify competition-specific/off-field situations that you feel require MT?**

*Elaboration Probes:* Can you describe any challenges/difficulties you have faced requiring Mental Toughness?

Can you give any examples?

*Elaboration Probes:* what it is about this [situation] that considers it to be related to MT?

*Elaboration Probes:* Specifically, I'd like to narrow it down to on-field MT situations. For example, you've pointed out [situation]?

Can you give any examples during your performance?

*Elaboration Probes:* Specifically, I'd like to narrow it down to off-field MT situations. For example, you've pointed out [situation]?

What Mental Toughness attributes are important throughout these situations?

Prompt: - off-field MT situation, why do you feel this is an important?

Tell me more about the Mental Toughness attributes that have helped you throughout these MT situations?

*Clarification Probes:* I'm not sure I understand what you mean by that (situation)? Can you just go over that again?

*General Probes:* Before we move on to the next question in the interview are there any other situations you can think of that stand out?

---

**Section 3 - Understanding what Select Group referees do during these situations requiring Mental Toughness.**

- **How do you behave/think during these particular mentally tough situations?**

What behaviours/thoughts do you utilise throughout this situation requiring MT?

*Elaboration Probes:* Can you give any examples?

*Elaboration Probes:* what it is about this [behaviour/cognition] that considers it to be related to MT?

Why is this behaviour/cognition important?

*Clarification Probes:* I'm not sure I understand what you mean by that [behaviour/cognition? Can you just go over that again?

Prompt: - behaviour/cognition, I'd like to hear more about how you handled that situation?

*General Probes:* Are there any other behaviours/cognitions you can think of that you've utilised during your role as an elite-level official?

---

**Conclusion**

- **Are there any other important aspects of MT that we have not discussed?**

**Thank you for your participation!**

## ***Appendix F***

### ***Example Transcript of Study Two Interviews***

## Appendix F: Example Transcript of Study Two Interview



### *Understanding Mental Toughness in elite football officiating: Perceptions of English Premier League referees*

**Interview (52:45mins) with Referee X at a Select Group training camp at 11:00am on Tuesday 26th April 2011.**

**I1 During your time as a Select Group referee, can you talk to me about situations requiring MT??**

R1 So I've been in the Select Group now for eight seasons, I'm also on the International-list as well as one of the two elite referee based in England; with X the other one. I'm also now full-time, in 2003 when I was up for a contract with the PGMO to become a Select Group referee I was a full-time serving Police-Officer and I'd just started here in Sheffield and realising the difficulties involved in combining being a Police Officer and a Select Group referee. I managed to get my hours down to twenty hours a week in 2003 from forty a week, which was part-time, or half the time a normal Police Officer would do.

That continued for five years until April 2008, when I decided that the demands particularly of International football meant that I wasn't really doing justice to my Police work and I was struggling to stay on top of what was happening so I started a career break in 2008 for five years which lasts until April 2013. So I'm more than halfway through that now. So there's a guaranteed place for me here in Sheffield at the rank of Sergeant which is what I left at. So yeah I'm one of the full-time lads and I think that there's maybe half the lads who have got part-time work in some capacity and that's where we are at the minute. So I'm one of the sixteen on the Select Group and one of the full-time lads, as well as an International as an elite referee on the FIFA-List.

Somebody asked me what's life like as professional referee and it's still fairly new. I mean the professional referee is fairly new, I mean referees have always been professional in their approach to survive in the old First Division and the Premier League between 1992-2001 when they were contracted to referee games. So it was a little bit blurry because we were professional before and we were getting paid a thousand pound a game on the Premier League. Before my time before 2001 and then these contracts came in and they sort of added this element of being professional in terms of payment because you're on a contract and they also give you the option not to have to work as well because you had some more security as well.

Life is better than it probably was before and the highs are higher than they used to be because I'm involved in some really high-profile games. Some great experiences, but there are low experiences as well, because you could make a mistake, and make a high-profile mistake and the media attention is pretty strong these days and more than it would've been to my counterparts 15-20 years ago I guess. I'm assuming that because I



wasn't there at that time at this level, so I'm assuming that was the case. For me the thought of not having professional referees and what I mean by professional is referees who dedicate their time and their entire working life to doing this, it seems unrealistic to referee some of the sizes of these games that we are doing.

You know, the rewards and what's at stake for these clubs needs that full-time attention and full-time focus and I think without it we would suffer. Also for me as well, for what I've done in the Premier League I'm very busy off the field. So I've got to do my training, I work around meetings, I do others things that other referees don't do and I'm slightly different because of what we achieved last year Internationally. So there are lots of additional stuff to do as well because there are lots of people wanting a piece of you and its quite demanding for sure.

I would suggest that I am as well-known as 50% of the players on the Premier League, just because referees are a single figure and we are not one of eleven or twenty-two on the field. So whenever there's a big decision the camera focuses in on you, and again because of what we did last year people know who we are. It's not like in some of the areas of the really top high-profile stars of the Premier League, but your average sort of player, I would suggest is more anonymous than what we are. Because the top referees are seen on the TV, we are involved in some controversies sometimes and because there's so much attention on the games that we do.

**I2 I've never really thought about it like that... You mentioned having some positive experiences related to MT. Can you talk to me specifically about them?**

R2 Just being involved in great games, I mean you have the traditional top four in English football in terms of United, Town, Albion and City. There's some blurring of the lines about which are the biggest games of the season but I would suggest that if you asked the average football fan about who they thought were the big four, it would be those four in terms of tradition, fan-base, International recognition and achievements in England and abroad; they would be the top four. I've refereed something like twenty games involving those four teams. So each and every one is a high-octane, sort of occasion, big atmospheres in the stadiums which are always full and it's a great feeling to be involved and to walk out at 2:55pm or whatever time the kick-off is, and to be involved in a fixture like that.

**I3 Is MT something that you need as a Select Group referee to embrace that type of atmosphere during competition?**

R3 Yes, definitely and there's no doubt looking back on my career I perform even better in those sorts of games I think, if you make a mistake during these games you know the size of the scrutiny is massive and everybody knows about you. But looking back over those twenty games or so there's been some instances of course but usually they pass really well. What I think is that I'm more tuned in to what is happening because the nervous system is working that bit harder, the adrenaline is following. So yeah I guess I think top players respond in the same sort of way usually in a game, your top players will perform and bring their A game. That's a key factor in surviving at this level; if you can't do that then you probably won't referee many of those sorts of games. The challenge is making sure that you perform well because those games are important because those are the ones mostly seen.

But it's important that you give 100% to the other games which are equally as important you know in terms of merit a table position which affects the bonus payment at the end of the season. It affects the type of appointments you get and ultimately that will secure

your place on the Select Group if you finish near the top of the merit table. So your lower-profile games carry the same number of marks. Automatically your body doesn't give the same responses at a regular game as it does to a top game. So it's important you stay focused in those sorts of games.

#### **I4 Is that mentally tough to deal with?**

R4 It can be because I think the body has natural responses to certain situations and it's difficult to reproduce or replicate those natural responses in a sort of more manufactured way. So you know those really fine sort of like nervous reactions that you sort of get that make you see something just before it happens or makes you more tuned in to something. So it's just something that's makes you that bit better, but it's difficult to replicate and if the nervous system is not working as intensely, it can be difficult.

But equally you don't want these high-profile games, week-in, week-out and it's not so much physically, but mentally. Mentally it's exhausting. You get a top game there's a big build up, there's pressure on the game, and you know that every time you do a game you could make a career changing mistake in one game. Unusual, you look at what happened to X in the World Cup in 2006. He showed to yellow cards to a player from Croatia, didn't send him off, that has changed in career and his life. He'll tell you that not one day will go by that somebody doesn't mention three yellow cards. So that must be an absolute pain in the back of a twenty year career where he's done over 300 Premier League games and refereed some top-level matches. Yet that one decision not to send him off has defined his entire career and you have to be mindful of those situations that could really define your career.

So these games can be more career defining, so the likes of your United's, City's, Town's, and Albion's are more defining because more people are aware, they have a bigger impact, they are all over the back pages. But if you do a lower-League game or a lower-profile game, they are still important but you can see how when you are getting a big, big, big game, then you're walking that tight-rope of knowing that you're putting your reputation on the line.

You don't want them big games every week... you want to dip in and dip out, and you want them to be spread out across the team. We need strong squad, and we have a strong Select Group. I think we have seven or eight who could do any game and that's what you want, you don't want to be reliant on two or three people who are capable, who have the capabilities of doing any game because of experience, their demeanour on the field, the level of accuracy that sort of thing.

#### **I5 Moving on then, what do you think are important MT cognitions that you have that make you able to deal with mentally tough situations in the Premier League?**

R5 I think a strong self-belief is important because there's so many external influences and people trying to get into your head all the time. Like coaches, players, fans, and the media, so you need a strong self-belief within the ninety minutes but also in your career and in your life in general. Strong motivation I think, strong motivation to get to the top, once you get there motivations not too big of a factor because doing what you're doing just keeps you motivated. But to get there, you get so many knocks, so maybe I would suggest that 8-10 times in my twenty-one year career I've come home from games and thrown the bag in the corner and I've thought that's it I'm packing in, I'm not picking my bag back up.

But for being driven, being motivated the love of the game, and a desire to get to the top I've picked it back up and carried on. Support of other people as well that's really important, be it family members or colleagues or what have you, that's important as well having a lot of people around you and being able to preserve. I think the ability to stay calm is really important, stay calm under pressure, be a clear thinker, not a panic-er or not to lose it sort of thing. Some of that might come from situations that you might have experienced in life and in your profession as well maybe. So did I join the Police from refereeing because of the sort of person I was or did I learn to sort of be the person I am, I don't know.

But in refereeing there are certain occupations that are drawn into refereeing. Lots of people have got a love for a game whether you are a bin man, a nurse, an airline pilot, or a soldier, but not all professions are represented. Some are compatible time wise, so if you are a heart surgeon you aren't going to be a referee because you're not just going to have the time to dedicate to it and progress and even if you're involved in business but it depends what that business are.

But teachers, police officers these types of jobs are well represented in refereeing and because it's having the ability to communicate with people, to get people to see things your way because there's no right and wrong on the field sometimes. Sometimes it's very clear, but sometimes it's the way that you perceive something and it's the way that you sell that. So even on video replay, you can get a panel who 50% say it should be this, 50% saying it should be something else. So on the field you have to have a strong belief in your ability, strong body language be that verbally and non-verbally to people and get them to trust you because then they will believe you.

**I6 Just to pick up on that, can you talk to me about the non-verbal communication and how does that come across on the field of play?**

R6 It can be in so many ways, its presence but it's hard to define it in a number of words what gives a referee a certain presence. It might be just physical size that might help, but I've seen small referees with a lot of presence. So then you think what gives them that sort of presence, I guess it is just the way you use your body, the way that you use your face, the way that you look at somebody, the way that you use your signals, your proximity to people and to play. Also it's knowing when to use strong body language and when to use the softer edge of it, this green and red sort of thing.

You know knowing when to tell people know this is not for debate and this is the decision and you can forget about asking about it. But other times it's helpful to enter into a small bit of dialogue, or to receive a bit of dialogue and have that softer approach, just to gain that trust of players. If you have that strong edge on everything that you do, that non-approachable side, the players won't tend to work with you in the same way I guess. They may see you as non-approachable or authoritarian, they might not think that they can actually work with you I guess and you need to have a bit of both. It's so important that you mix and match it when it's right to do that. You probably gain that just from experience about reading player reactions, to what you do, to know which response is right to each situation.

You'll get it wrong early in your career I guess. You know you'll enter into too much dialogue with the players. I see young referees all the time speaking too much to players. They're entering into too much dialogue with the players, and players will see that as a sign of weakness that you're not quite sure in your own mind of what you've seen or what you're doing. Overseas players particularly, I mean at a corner-kick I'd go and speak to the goalkeeper and say "I'll be watching you", and goalkeepers are a key

part of that set-piece there, because he's a bit of a target for the forwards, you know he's got to protect his own area sort of thing.

So I go over a say "I'll be watching you, don't over react", and they'll go "Thanks ref" and they appreciate that and like that, so they're less likely to miss behave. You go overseas and if I go to X and say "I'm watching you", he goes "Ref, what have I done, why are you speaking to me" you know what I mean. They don't understand why I would be pro-active in that situation because it's unusual in their culture or in their football they've experienced. So you don't speak as much, and I've learnt not to speak as much as well, I mean not to be aloof because there are times off the ball when you can have a chat, just one little smile or a thumbs up or something like that can be better than a thousand words really. It's just knowing when to do it.

**I7 You mentioned body language and commands with the players, do you think that that they are important MT behaviours when refereeing at the elite-level?**

R7 You know what Liam, I think it is because I see the players trust me more now than a 159 games ago. You know because they've had me before, they've seen me on TV, they know that I've survived at this level. They know that I'm not a rookie; they know that I'm not on trial. To survive at this level, they know that I must be pretty good, pretty reasonable. They do trust you and even more so after last summer and the World Cup, they trust me even more now. I had a situation in my first Champion Leagues game after the World Cup, I gave a penalty in the first ten minutes against the home team and the home keeper came up to me and I thought he was going to have a go at me and he said "It must be a penalty, he's the World Cup Final referee", which is a load of rubbish and he smiled and that just shows that that sort of thing has an impact on the mentality of people.

Gaining that trust is important because like I've said sometimes you'll give a decision that they don't always agree with and there might not be a right or wrong answer. It just depends which angle you come at it from, whether it should be a penalty or not, or a red card or not. I mean we can disagree as referees, we are the sixteen most maybe not experienced referees, but the highest-level referees in the Country and we disagree on situations. So if we are disagreeing not always but sometimes we will find it hard to find common ground and conformity because the situations can be complicated and different.

So you can't always pigeonhole them into a certain place, so we'll look at videos and disagree, so if we are disagreeing, the players are bound to disagree, the managers, the media and the fans will also. The main thing is that we can show that in our body language that we believe in ourselves, we believe in what we've seen. Take the players on that journey that they think ok, I can see why he's given that or I can believe that he's got it right. They might see it on the video later and they might not agree but the key thing for me is on the pitch.

**I8 Ok - so that trust in decisions is important then?**

R8 It was almost like a honeymoon period really, and it has been easier and I suppose it gives you confidence. Players are prepared to accept your decisions more, not arguing or dissenting towards you. I'd be the same if I was a player and I saw a referee who I thought was unsure of what he was doing and if I thought it was easier to ruffle him for my own benefit then I'd do it, do you know what I mean.

### **I9 Ok - so how would a referee convey that sense of confidence and MT?**

R9 I know if I'm confident about a decision, I'm much more prepared to look a player in the eye, I'm much more positive in my body language. My shoulders will be back, my head will be up, I will be looking them in the eye, I will be strong in my signals, and you know I'd be very strong. Whereas if I'm not sure about a situation I'm less likely to have that strong approach and if I think I'm not sure about that, I know players will ask me about that, I'll try and get out of the way do you know what I mean and not interact.

That's something I've learnt to do because I know in some decisions I've not been sure of unfortunately because it's impossible to be certain of every decision. I'll disappear out of the way rather than getting into a confrontation with the players because I don't want the players to see that I'm unsure. I can try to show a level of certainty but it's difficult because you've got to be a bit of an actor. Sometimes you've got to do that. When assistants make a decision, we can speak to each other, so if they're certain of a decision then give it. If they're certain, I will tell them before a match I'll say "listen, if you're certain, tell me that you're 100% certain" and that gives me a real sense of confidence then to deal with the players and to be very strong.

Whereas what I don't want to do is a decision that we might have potentially got wrong and I'm really strong and I give a yellow card, and it might be his second yellow and it's a red card. I end up compounding a potential mistake, whereas if I know I'm right, and we are on very solid ground, then I can be very strong with the players. They know that if they don't disappear now they will get yellow carded, if they continue arguing, there you go "wack" yellow card, might be a second yellow, red card whatever. But morally we are on really strong ground because I know that we are right, if you know you're right you are in a very good place.

You'll see referees make decisions that they're not sure about or you know they'll be a bit flustered. Their signals won't be as strong, they'll take too much time making a decision, or they'll go and speak to their assistant referee and again sometimes you have to. As a player I'd do everything within the laws to get an advantage and if I could disrupt a referee and think that I'd get a benefit from it I would.

### **I10 It's interesting because is it that it's not just about confidence in yourself but having confidence in your team as well then?**

R10 Teamwork's massive... we saw that in the World Cup some really experienced referees were expected to go to the later stages, went home early because of decisions made or not made by their team. I think the reason that we went to the very final game is because of the strength of our team. That was recognised in the early stages. The trust between each other is amazing, we had total trust in each other, I would say that teamwork in officiating is massively important; I don't know if the management quite appreciate how important it is. There's a lot of tinkering with teams, a lot of messing and changing with teams and interacting and stuff.

### **I11 So what would you prefer?**

R11 A settled team, absolutely, 100%. To work with the same people, it might be healthy not to just work with the same two every single week but mainly if you're working from two from four every week. Just have a little bit of fresh impetus by changing it a little bit now and again is fine. You build that trust and understanding, you learn how each other works and thinks and it doesn't matter who gets the credit as long as we get the correct decision that's all we are bothered about. You know the assistants

in my games in South Africa made some unbelievable decisions that were recognised by FIFA for being unbelievably accurate decisions.

We weren't really faced with any tricky situations until the Final and then I was prepared to stand-up in our debriefings in front of everyone and say "it's the two lads on the line that have been outstanding", I mean my first game in the World Cup was against Spain vs. Switzerland and in the last minute there was a last ditch pull-back my a defender, inside? Outside? Off-side? Not off-side? Red card? Yellow card, all these things we had to think about. They asked me to talk about it and they said it was a good decision, well done, can you explain it? I said to be honest most of the decision-making came from my assistant and they thought it was really positive that I'd given credit to the team and it was his decision by and large.

**I12 You've mentioned several components surrounding Mental Toughness, a few of the lads mentioned this was important. Do you think it is important to referee as a Select Group referee?**

R12 Yeah, I mean I've just come back from a UEFA elite-referees course last week in Cyprus. One of the things they said to us is don't be a popular referee, don't try to be a popular referee, and don't shy away from difficult decisions. So maybe there's a difficult situation five minutes into the game and a home player in an important Champions League game or a Premier League game makes a tackle that you know is a red card offence. You know you've got a good view of it, you know he's gone over the ball, you know that it's a 100% red card but not many of the people have picked up on it, not many of the players have picked up on it, maybe there's no great reaction and the easy opportunity is to show the yellow card.

But what UEFA are saying is that if you know it's a red card, show a red card you know, don't back down and don't shy away from it. You're there to do a job and you'll be backed up by the powers that be. That's where you need to be mentally strong. A few weeks ago I did Rovers vs. Wanderers at John Street and I gave a really soft penalty in the first minute to Rovers, it looked at penalty to me, a stone-wall penalty. It looked like Brown had swung his leg and caught Smith; Smith goes down, stone-wall penalty. But it's in the first thirty seconds which makes it difficult. So you have to be mentally tough to give that, then twenty-five minutes later Alan Scott puts in a really poor tackle on Johnson, again it would've been easy to show a yellow card because you've upset them with a penalty shout, their one nil down and you're going to put them down to ten men. So there are some decisions that are easier than others.

**I13 Is it having the confidence within yourself in that you can deal with situations demanding MT after making tough decisions?**

R13 Don't get me wrong you need to box clever. You don't want to be a maverick; you don't want to be stupid. They talk about being strong on holding in the penalty area and if you really want to look hard you'd probably find six or seven penalties in a game. If you give seven penalties in a game, there will be some people who will say "Fantastic, well done", and say "He had the courage to do that" and that sort of thing. But you won't do a big game for ever, do you know what I mean. You've got to referee everything in a credible way, do you know what I mean you don't want to be so left-field and out of line with what everybody else is thinking but you are there to do a job. I did a game in the Euro's and I gave a penalty in the last minute, and I clearly saw what I saw, it would've been easy to ignore it. But you need the mental toughness and courage in your convictions to do what you think is right.



When I talk about boxing clever, it might be that you give a decision and you're then surrounded by four or five players. So they come running at you and it might be that two of those players are on yellow cards and three of those aren't, now there all doing the same thing, yeah, by running at you. They're handing themselves over to you for a yellow card and you can justify giving them a yellow card for players running at you in a dissentful manner. So if you're going to pick one of those to caution and to get them all to go away, you're going to caution one that's been yellow carded already. Some purists would say you should caution all five; bang, bang, bang, bang, bang. Well you probably could justify it because they've all been dissentful but is that the right management for that game?

You've got a big responsibility, you might have 60,000 that have come to watch this game, you've got millions on TV, so to show yellow, yellow, yellow, times five, and send two of their players off, who's the villain of the piece. You know it's going to end-up being me, for not using all my management skills, for not being empathetic to their cause and their feelings. So you're going to pick a player that's not already been cautioned and hope then that all the players go away and disappear, thinking that we don't want to get a yellow card and that's wise management of the occasion and the game. So you can't employ this purist view of the game and what we do, it's not an exact science for sure. Situations aren't exactly the same from game to game but I do agree that you need strength of character and mental toughness.

If you know what you've seen, if you know what you've got to do, in those scenarios, do it. In my career, I've been in those situations where a player stamps down on another player, he's played the ball then he's deviated his leg to towards an opponent and caught him on the knee, shin, whatever, and I thought it's a red card, but nobody's reacted. The player on the ground has not reacted; his team mates have not reacted and not asked me the question. Nobody, none of the fans, all these little factors that you look for and you might be surprised if I say you listen to fans reaction but you don't because fans will appeal for anything but maybe just a little tiny factor that goes into the subconscious decision-making process.

Nobody's reacted, I thought, I must've misread that, I must've seen too much of that. I've played on, I've gone home and watched match of the Day that night and said "you idiot", why didn't I have more self-belief in my decision-making, more courage in my conviction, more mental toughness. To think I know what I've seen, it's a red card and everybody would've said great decision, great spot. Because I saw it, and I've been conned by the lack of the usual reaction that you get, because what we tend to do, is that when you get more experience you learn to read natural reactions really well. You learn about how players, whether it's the use of his body language, the way he looks at you, the way that he speaks to you, you learn to read player reactions.

#### **I14 Does this come with experience then?**

R14 Probably both, it's a skill to be able to do it, but you only develop that skill through experience, I think. So it becomes a skill and an ability through experience to develop it. I think it is a key skill to have and one of the key reasons why as you as a decent level footballer, who's not refereed, wouldn't be able to referee at this level because you know what a corner is, you know what a goal-kick is; you know what a penalty-kick is. You know enough about the laws of the game to get you through, some of the finer details you might not know, but you basically know enough to get you through. But it's just knowing what's expected of you, and knowing what's acceptable and what's not

acceptable at this level. What's an acceptable foul, waiting for players to tell you what is a goal-kick or a corner-kick?

Sometimes you just don't know, from your position and from your viewing angle and you think I don't know if that's a corner-kick or a goal-kick but the players will tell you what it is, because there are enough players that do know from their position. The defender who makes the sliding tackle will know if it's a corner-kick, the goalkeeper will know if he's got his fingertips to the ball. He'll set himself for a corner, and he'll make the decision for you and you learn these things as you go along. That's why I would say to any young referee coming through, do as many games as you can at an early stage.

I use to do Saturday morning, Saturday afternoon, Sunday morning, Sunday afternoon, so I did four games in a weekend. My legs were young enough to do it, I learnt from every single decision I make and every game I refereed. I built-up this bank of experience and some of its subconscious but learning from each and every one of the situations I went through and then that developed my gut reaction. You'll see referees with more experience hold the whistle, you'll see them not over react, and you'll see them wait for situations to develop.

It's just having that confidence just to wait and give yourself that bit of time. Good players can create time for themselves, and I don't know why and I don't know what it is but the top referees have that little bit more time, you almost slow things down in your mind a little bit. It's also anticipating in advance these cognitive skills that might happen and that can only come with experience I think, that you can anticipate what might happen. Knowing just to take that little bit of an extra yard and then go right, this is likely to happen in this situation. I guess you just learn from previous experience.

#### **I15 Is it having a feeling for the game and how it's played at the top-level then?**

R15 Yeah it is, I mean an interesting point is that 95% of our time is taken up doing Premier League games but we'll do some Football League games and you have to adjust your game a little bit. When you referee in League Two it's a different type of football. I sometimes find it quite difficult because it's not what you're used to doing, you know what I mean. The expectation as a player is that there are more free-kicks in League two because they can't take advantage of possession the way that Premier League footballers can. So therefore you need to be a little bit more ready to stop the game and give them the free-kicks because that's most advantageous in that situation.

#### **I16 Are there any other mentally tough situations that you have to deal with?**

R16 Yeah... Just pressure from players and managers, the number of times I've been told things coming out of the tunnel for the second-half. I've been told things that have been blatant lies. Total untruths, so for example, there will be a penalty shout in the first-half and coming out for the second-half and a coach or player will be waiting at the top of the tunnel will say "have you seen it", and I've said "no, I haven't seen anything, I've got no TV, can't watch TV at half-time", and they'll say "oh we've seen it and it's a clear penalty." So they're trying to influence your next decision.

They are trying to get into your head to make you think, that you've made a mistake, so therefore when there's a penalty shout in the second-half you might be more inclined to give it. So there you have to be mentally tough, and I'll tell people don't believe a word that their saying, until you've seen it with your own eyes. I have been told blatant lies at half-time. Maybe you do it yourself you don't know. But they're trying to gain an



advantage and if they see a weakness in me, then they'll try it on, so therefore I don't believe anything I'm told until I see it with my own eyes.

The other time you need to be mentally tough as well, is when you think you've made a mistake yourself you know. That's one of the hardest things to do and we've got to psychological input from people like Steve and UEFA employs a Sport Psychologist from Switzerland as well. He talks about trying to park these situations but it isn't easy, and no matter how much training you get it's still hard. What Steve tries to do is to try and rationalise it and put it into perspective. You talk about some situations that can kill your career, they really are few a far between and I think you need to... the more you're involved it's more unlikely that a mistake will be career defining.

**I17 Does that define mentally tough Select Group referees then from lower league officials?**

R17 Yeah... I think what defines the Select Group for me is that we have the ability to be consistent with performances. I not saying it's like having three or four good games and then one bad one. That's not a ratio you can live with. I'm told strikers need to score one in two at the Premier League-level; one in three's not enough. For us one bad game in five is too many, one bad game in ten is probably too many. You know, you can carry a bad game of course you can, but your consistency level needs to be higher in the Premier League than in the Football League.

I think the ability to make decisions in big stadiums that are a full-house and lots of TV coverage; I think that's what sets you apart. The ability to perform under that spotlight and to maintain your composure, to be positive in what you're doing, your body language, and you're decision-making. Ultimately, the quality of your decision-making is what matters I guess when its scrutinised by a range of people, our management, the media, the players, the fans, if the general consensus is that you're a good decision-maker that's massively important of course.

But you can be totally calm and relaxed, be strong in your own body language, and have strong self-belief, But if you're making mistakes that are perceived as mistakes, some are not always clear, then you will struggle to survive. So accuracy of decision-making is important when it comes down to it. So you're making accurate decisions, staying calm, having good body-language, underpinning all of that is the level of decision-making that you're giving.

**I18 I know we're pushed for time, so finally can you talk further about situations requiring mental toughness when refereeing in the Premier League?**

R18 I really don't think you can compare my life to that of a National-List referee who referees on the Football League, its light-years away. For example, if I drive down the motorway and I stop for fuel at the services, I'll get stopped between the pump and getting back into the car, I'll get stopped two or three times. If I go for a toilet stop, someone will stop me and want to talk to me, usually quite positive but then that has a demand every time you go out but they are usually pretty positive.

**I19 Can you go into more detail for me with that?**

R19 I mean it happens quite gradually, but the difference is, is that in many respects we are still normal people you know. I mean we've come through a normal sort of a life, because this happens gradually, whereas players in this day and age are products of youth systems. They are cocooned in this footballing World and there are lots of people

nearby to guide them and advise them. We are slightly different, we live on a normal street, my kids go to a normal school and there's this bizarre side of things where I'll be going to the shops and somebody will want a photo just because you are part of this massive industry with footballers and the scrutiny. So that's a pressure and a demand.

On top of that and it's not only myself and it's with the guys who get the bigger games on the Select Group, is that we will get asked to give talks and speeches, to do things with the Referees Associations, to do business things. I've been asked to open the new entrance to District General Hospital, which has just been completed and they've asked me to cut the ribbon or whatever. So these amazing sorts of things that five years ago I would've never been considered a candidate for that kind of thing so...

On top of that, you've got all your training, you've got all you're travelling, you've got your Champions League matches which is three days away from home. Courses like last week which is a full week away from home. On Saturday I referee Town vs. United, then I'm jumping on a plane Saturday night to go to Dublin to speak at the Irish Referees Seminar, three weeks later I'm off to Belfast as well.

### **I20 Can you talk to me about that International transition then?**

R20 It's mainly more of a demand on your time than anything else. Clearly the guys that aren't on the FIFA-List have a lot more time. That was the deciding factor in leaving work because it was the demands of International football. It was six weeks in South Africa that would have been impossible to manage in a Police career, it was four weeks at the Euro's, I did four weeks in Nigeria for the Under-Seventeen World Cup, I did four weeks in Canada for the Under-Twenty-one World Cup, three weeks in Portugal for the European Under-Twenty-one Cup. Confederations Cup was three weeks in South Africa. So all these sort of things take up a lot of your time and I'm off to Japan in the summer to referee a game there, so you know a lot of demands on time and travelling.

### **I21 Wow... I interviewed X a few days back and he said to ask you about making tough decisions in refereeing and I said I would ask you?**

R21 That's what we were talking about when making decisions that could be potentially unpopular or potentially surprising decisions. You know there right and that's where you need big balls. Like putting a home team down to nine men or any team down to nine men. I saw Justin Black a new lad in about his fifth or sixth Premier League game and he had City and Rovers in the autumn and he sent-off a defender for Rovers and gave a penalty to City. Then about ten minutes later there was a really shocking tackle on a City forward by a defender from Rovers who was already down to ten men. I thought that's a red card but I bet he doesn't do it and he had big cahonnas... Because he sent him off, do you know what I mean. That put Rovers down to nine men with twenty-five minutes gone on his fifth Premier League game. That's not an easy thing to do but if you know it's right and there's no other option it's an easy thing to do. So that's where you need big balls and that lads in the Premier League show that, otherwise they wouldn't survive really.

### **I22 Can you talk to me a little bit more about that?**

R22 I think the thing that gets them on to the Select Group is their quality of decision-making and the thing that keeps them on is their mental toughness. I think that's a fair way to sum it up. I think you know, if you didn't have that mental toughness you wouldn't survive at the top-level. It's just being able to deal with the pressures, the size of the event, and the media intrusion. I never really had any media intrusion in my life

until my second Premier League game, until a journalist wrote in a Sunday morning paper about a decision I made which was a sending-off.

So again, it's the media intrusion, size of the event, worldwide TV audience, 70,000 at Bank Street or 60,000 at the Red Road before we even turn up. That size of audience that's what it's about. But it's like anything it gets easier with time you know what I mean, the first time you do it, I mean I look back now and I think it's a really daunting task to give young lads like Justin to referee at this Premier League level. It's not just the size of the crowd or the stadium, Matthew Garage did his first Champions League game a few weeks ago and I think it was at Athens which is one of the smaller clubs in the Champions League and I think the stadium holds about 24,000 people.

So it isn't massive, but it's just knowing that it's a Champions League game and knowing what's at stake and what it means to them. So it's about being calm and composed, doing what you've done before, trusting yourself, thinking back to all those games you've done well, all those successful decisions you've made, all those successful games you've delivered, drawing strength from that and having that self-belief. So you're not a quivering wreck when you go out, because the players will see that. So if you go out and you're shaking and you're all nervous you wouldn't be very comfortable would you.

**I23 Is that an important MT cognition then?**

R23 Sometimes I'll think back and in the World Cup Final after twenty minutes I said to the boys "this is not going to plan." We've had four yellow cards in twenty-two minutes and I'm thinking bloody hell, but you've got to try and stay calm on top and show everybody else you're in control and not lose it. It's like I said you've got to be a bit of an actor and a bit of a salesperson. But you do, you do have to sale your decisions.

**I24 Finally then is there anything you think we haven't talked about that is a factor refereeing in the Premier League.**

R24 No, I think we've covered it all.

**I25 Well thank you for taking time-out, I really enjoyed the interview.**

**(Word Count: 8,628)**

**(Pages: 12)**

## ***Appendix G***

### ***Ethics Approval for Pilot Study***

*Application for Ethics Approval of Research*

*Risk Assessment Pro Forma*

*Participant Information Sheet*

*Informed Consent Form*

## Appendix G: Ethics Approval for Pilot Study

Application for Ethics Approval of Research

### CONFIDENTIAL



*Sheffield Hallam University*

**Faculty of Health and Wellbeing  
Research Ethics Committee**

**Sport & Exercise Research Ethics Review Group**

### APPLICATION FOR ETHICS APPROVAL OF RESEARCH

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Sport and Exercise Research Ethics Review Group before approving a project. **ALL** of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

<b>1) Date of application</b>	1 <sup>st</sup> December 2011
<b>2) Anticipated date of completion of project</b>	Sept 2012
<b>3) Title of research</b>	Development and preliminary evaluation of a Mental Toughness Education and Training Programme (MTETP) for English football officiating.
<b>4) Subject area</b>	Sport and Performance Psychology
<b>5) Principal Investigator</b>  Name Email address @ SHU Telephone/Mobile number Student number (if applicable)	  Liam Andrew Sla liam.slack@shu.ac.uk 0114 225 5368 / 07832 979 491 B20002333
<b>6) State if this study is:</b> (If the project is undergraduate or postgraduate please state module name and number)	<input checked="" type="checkbox"/> Research <input type="checkbox"/> Undergraduate <input type="checkbox"/> Postgraduate  Module name:  Module number:
<b>7) Director of Studies/Supervisor/Tutor name</b>	Director of Studies: Prof. Ian W. Maynard Second Supervisor (1): Dr. Joanne Butt Second Supervisor (2): Dr. Peter Olusoga



<b>8) Intended duration and timing of project?</b>	<p><b>Jan 2012-</b> Preparation of participant list and initial contact with potential participants.</p> <p><b>Feb 2012-</b> Recruitment of participants.</p> <p><b>May - June 2012-</b> Implementation of MTETP workshops.</p> <p><b>July - August 2012-</b> Data analysis carried out.</p> <p><b>August - Sept 2012-</b> Write up of study.</p>
--	---

<b>9) Location of project</b> If external to SHU, provide evidence in support (see section 17)	The research project will be conducted at Sheffield Hallam University, Don Valley Stadium, participants training facilities or a location of their choice.
---	--

<b>10) State if this study is:</b>	<p><input checked="" type="checkbox"/> New</p> <p><input type="checkbox"/> Collaborative (please include appropriate agreements in section 17)</p> <p><input type="checkbox"/> Replication of :</p>
------------------------------------	---

<b>11) Purpose and benefit of the research</b>	
Statement of the research problem with any necessary background information (no more than 1 side of A4)	
<p>As this study examines the development and preliminary evaluation of a MTETP, the intervention will occur over an eight week period. It is important to note, identifying the appropriate developmental stage of participants in accordance with the nature of MT interventions requires careful consideration (Crust &amp; Clough, 2011; Gucciardi, 2009; Gucciardi et al., 2009c). Within the Talent Development pathway (e.g., Cote, Baker, &amp; Abernethy, 2007) "investment" participants focus their attention on one activity and engage in a high amount of deliberate practice and a low amount of deliberate play. In essence, these participants are committed to achieving performance excellence in a single sport (Cote, 1999). Therefore, investment referees (i.e., level-six English football County referees) were targeted because this developmental stage in sport is seen as a critical juncture in the development of MT (e.g., Connaughton et al., 2008; Gucciardi, 2010; 2011; Gucciardi &amp; Jones, 2012). The purpose of the intervention will be to evaluate the efficacy of a MTETP for football officials operating at level six of the English refereeing pyramid.</p>	

<b>12) Participants</b>	
<b>12.1 Number</b>	6-12 Level six English County football referees
<b>12.2 Rationale for this number</b> (eg calculations of sample size, practical considerations)	The sample size for this study will be purposefully selected (Patton, 2002) in order to provide a depth and richness to the information gathered. This sample size is considered adequate in order to generate sufficient in-depth data whilst taking into account the logistics and practicalities of recruiting, conducting, and analysing the data within the proposed timescale.

<b>12.3 Criteria for inclusion and exclusion</b> (eg age and sex)	All participants must be a current member of the Sheffield and Hallamshire FA and referee at level six of the English football refereeing pyramid
<b>12.4 Procedures for recruitment</b> (eg location and methods)	<p>A purposive selection procedure (Patton, 2002) will be utilised to recruit potential participants for this investigation.</p> <p>Following completion of institutional ethics approval procedures, participants will be contacted initially via phone/e-mail and invited to participate. For those who agree to participate, a letter of information outlining the intention and prospective benefits of the intervention, as well as a detailed account of participation requirements will be administered. In addition, convenient times and locations for the workshops will be agreed.</p> <p>To ensure confidentiality, an informed-consent form will be given to each participant. In addition, it will be made clear the present study will be voluntary in nature and are permitted to withdraw any time throughout its duration.</p>
<b>12.5 Does the study have *minors or ‡vulnerable adults as participants?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>12.6 Is CRB Disclosure required for the Principal Investigator?</b> (to be determined by Risk Assessment)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, is standard <input type="checkbox"/> or enhanced <input type="checkbox"/> disclosure required?
<b>12.7 If you ticked 'yes' in 12.5 and 'no' in 12.6 please explain why:</b>	

\*Minors are participants under the age of 18 years.

‡Vulnerable adults are participants over the age of 16 years who are likely to exhibit:

- a) learning difficulties
- b) physical illness/impairment
- c) mental illness/impairment
- d) advanced age
- e) any other condition that might render them vulnerable

### 13) Details of the research design

#### 13.1 Provide details of intended methodological procedures and data collection.

(For MSc students conducting a scientific support project please provide the following information: a. needs analysis; b. potential outcome; c proposed interventions).

Similar to that employed in existing literature (Callow et al., 2001), this MT intervention will adopt an experimental design that compared across groups, and in this case, characterised as a pre and post-test control group design (Cherulnik, 2001). The independent variable is the experimental condition of the MTETP group and control group between pre and post-intervention phases. The dependent variable is the six subscale scores from the MTQ-48. Post intervention, qualitative data will be collected via an adapted version of a Social Validation Questionnaire (SVQ; Hrycaiko & Martin, 1996). Referees in the MTETP group will participate in workshops that target the situations requiring MT, and the MT components (i.e., attributes, behaviours, and cognitions) identified by Slack and colleagues (Slack et al., 2013; In-Press). Specifically, the MTETP group will participate in five, two-hour workshops over an eight week period prior to the start of the 2012-2013 English football season. Participants in the control group will not receive the MTETP or contact from the team of researchers during the intervention period.

A self-report MT measure will administered to all participants at both pre-intervention and post-intervention phases of the study. The MTQ-48 (Clough et al., 2002) is designed to measure MT in a sport-general context. The MTQ-48 is a 48-item measure that comprises six subscales: (a) challenge (e.g., challenges usually bring out the best in me), (b) commitment (e.g., I don't usually give up under pressure), (c) control of emotions (e.g., even when under considerable pressure I usually remain calm), (d) control of life (e.g., I generally feel that I am in control of what happens in my life), (e) confidence in own abilities (e.g., I am generally confident in my own abilities), and, (f) interpersonal confidence (e.g., I usually take charge of a situation when I feel it is appropriate). The items are rated on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Sport psychology research has identified the value of social validation techniques when evaluating the practical importance of applied MT interventions and experimental outcomes (Gucciardi et al., 2009d). Thus, participants' subjective responses to the MTETP by way of an open-ended SVQ will be gathered two months after the intervention. It is important to note, this information will be gathered during the early stages of the 2012-2013 English football season. It is anticipated that this approach and its timing will provide additional findings to that of the quantitative data, thus, strengthening the evaluation of the intervention's effectiveness. Following the recommendations of Martin, Thompson, and Regehr (2004), an open-ended SVQ will structured into four key sections: (a) thoughts about the aims of the MTETP, (b) the structure and procedures that were applied throughout the MTETP, (c) how the MTETP and the workshops within have benefitted the on-field performance of each referee, and, (d) the potential development areas of the MTETP and the workshops within.



<b>13.2 Are these "minor" procedures as defined in Appendix 1 of the ethics guidelines?</b>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>13.3 If you answered 'no' in section 13.2, list the procedures that are <u>not</u> minor</b>
<b>13.4 Provide details of the quantitative and qualitative analysis to be used</b>
The aim of the study was to examine changes in MT among the MTETP group and control group across pre- and post-intervention time points. All quantitative data analyses will be conducted using Statistical Package for Social Sciences (SPSS) version 19.0. As such, descriptive statistics (i.e., means, standard deviations) will be calculated for all MTQ-48 subscales. In addition, Cronbach's alpha ( $\alpha$ ) values will be reported to test for internal consistency reliability on all subscales. Finally, social validation procedures will be undertaken and completed individually in a setting most convenient to each participant. Social validation data will be inductively content analysed (Patton, 2002) by the team of researchers. Meetings were held with the team until all themes were established and consensus had been upheld on all statements (Lincoln & Guba, 1985).

<b>14) Substances to be administered (refer to Appendix V of the ethics procedures).</b>
<b>14.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements.</b>
Please tick box if this statement applies and go to section 15) <input checked="" type="checkbox"/>
<b>14.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.</b>

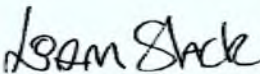
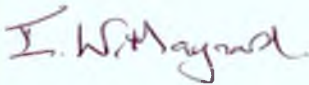
  

<b>15) Degree of discomfort that participants might experience</b>
Consider the degree of physical and psychological discomfort that will be experienced by the participants. State the details which must be included in the participant information sheet to ensure that the participants are fully informed about any discomfort that they may experience.
Due to the nature of the study, it is believed that the participants will not experience any physical or psychological discomfort during the MTETP intervention. Furthermore, the participants will be reminded that anonymity and confidentiality will be assured and that they may withdraw from the investigation at any time. This information will be included on the Participation Information Sheet.

<b>16) Outcomes of Risk Assessment</b>
Provide details of the risk and explain how the control measures will be implemented to manage the risk.
<u>Control Measures</u>
<u>Participant feeling slight discomfort during the MTETP intervention</u> All MTETP workshop material will remain anonymous. Participants do not have to answer specific questions if they choose not to throughout the MTETP workshops. Participants are free to withdraw from the study at any time.

17) Attachments	Tick box
17.1 Risk assessment (including CRB risk assessment)	✓
17.2 COSHH assessment	
17.3 Participant information sheet (this should be addressed directly to the participant (i.e., you will etc.) and in a language they will understand)	✓
17.4 Informed consent form	✓
17.5 Pre-screening questionnaire	
17.6 Collaboration evidence/support correspondence from the organisation consenting to the research (this must be on letterhead paper and signed) See sections 9 & 10.	
17.7 CRB Disclosure certificate <u>or</u> where not available CRB application form	
17.8 Clinical Trails form (FIN 12)	

<b>18. Signature Principal Investigator</b>	<p>Once this application is approved, I will undertake the research study as approved. If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor. If the supervisor advises that there should be a resubmission to the Sport and Exercise Research Ethics Review Group, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.</p> <p style="text-align: center;">   Date <b>01/12/2011</b> </p> <p>Principal Investigator signature</p> <p>Name Liam Andrew Slack</p>
<b>19. Approval Project Supervisor</b> to sign <b>either</b> box A <u>or</u> box B as applicable  (refer to Appendix I and the flowchart in appendix VI of the ethics guidelines)	<p><b>Box A:</b>  I confirm that the research proposed is based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore does not need to be submitted to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.</p> <p style="text-align: center;">   Date <b>01/12/2011</b> </p> <p>Project Supervisor signature</p> <p>Name Prof. Ian W. Maynard</p>

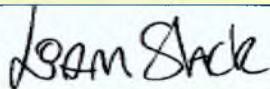
	<p><b>Box B:</b></p> <p>I confirm that the research proposed is <u>not</u> based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore <u>must</u> be submitted to the HWB Sport and Exercise Research Ethics Review Group for approval.</p> <p>I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>_____ Date _____</p> <p>Project Supervisor signature</p> <p>Name _____</p>
<b>20. Signature Technician</b>	<p>I confirm that I have seen the full and approved application for ethics approval and technical support will be provided.</p> <p>_____ Date _____</p> <p>Technician signature</p> <p>Name _____</p>

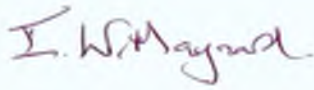
# Appendix G: Ethics Approval for Pilot Study

## Risk Assessment Pro Forma

	<p><i>Sheffield Hallam University</i></p> <p><b>Faculty of Health and Wellbeing Research Ethics Committee</b> <b>Sport and Exercise Research Ethics Review Group</b></p> <p><b>Risk Assessment Pro Forma</b></p>
---	--

**\*\*Please ensure that you read the accompanying  
Risk Assessment Risk Ranking document before completing this form\*\***

<b>Title of research</b>	Development and preliminary evaluation of a Mental Toughness Education and Training Programme (MTETP) for English football officiating.	
<b>Date Assessed</b>	01/12/2011	
<b>Assessed by (Principal Investigator)</b>	Mr. Liam Andrew Slack (liam.slack@shu.ac.uk)	
<b>Signed</b>	<b>Position</b>	
	Principal Investigator	
<b>Activity</b>	<b>Risks</b>	<b>Control Measures</b>
MTETP workshops.	<p><b>Risk</b> of [Participants feeling slight discomfort] caused by [discussion of sensitive topics].</p> <p>(R1= C1 x L1) <b>LOW RISK.</b></p>	<p>All MTETP workshop material will remain anonymous and confidential.</p> <p>Participants do not have to answer specific questions if they choose not to.</p> <p>Participants are free to withdraw from the study at any time.</p>

<b>Risk Evaluation (Overall)</b>	
<b>Low</b> Due to the nature of the study, it is believed that the participants will not experience any physical or psychological discomfort during the intervention process. Furthermore, the participants will be reminded that anonymity and confidentiality will be assured, they do not have to answer a question should they choose not to, and that they may withdraw from the investigation at any time. This information will be included on the Participation Information Sheet.	
<b>General Control Measures</b>	
Is a pre-screen medical questionnaire required? Yes [ ] No [✓]  1. Participant given participant Information Sheet. Confirm understanding. 2. Participant reads and signs Informed Consent Form.	
<b>Emergency Procedures</b>	
None	
<b>Monitoring Procedures</b>	
Continuously monitor participants throughout MTETP workshops for signs (verbal and non-verbal) of emotional distress.	
<b>Review Period</b>	Annually
<b>Reviewed By (Supervisor)</b>	<b>Date</b>
 Prof. Ian W. Maynard	01/12/2011



# Appendix G: Ethics Approval for Pilot Study

## Participant Information Sheet



Sheffield Hallam University

**Faculty of Health and Wellbeing Research Ethics Committee**  
**Sport and Exercise Research Ethics Review Group**

**Participant Information Sheet**

Project Title	Development and preliminary evaluation of a Mental Toughness Education and Training Programme (MTETP) for English football officiating.
Supervisor/Director of Studies	Director of Studies: Prof. Ian W. Maynard Second Supervisor (1): Dr. Joanne Butt Second Supervisor (2): Dr. Peter Olusoga
Principal Investigator	Mr. Liam A. Slack
Principal Investigator telephone/mobile number	0114 225 5368 / 07832 979 491

**Purpose of Study and Brief Description of Procedures**  
*(Not a legal explanation but a simple statement)*

Here at the Centre for Sport and Exercise Science at Sheffield Hallam University, we are currently looking to conduct a study exploring Mental Toughness within English football officiating. With the Professional Game Match Officials Limited (PGMOL) aware of the research project, we plan to use previous English Premier League refereeing research findings to develop a Mental Toughness Education and Training Programme (MTETP) for developing English football referees. In brief, the MTETP is designed to develop and enhance Mental Toughness.

Specifically, this project will involve five fortnightly workshops All participants will be assigned to either an experimental or control group and asked to complete an objective measure of Mental Toughness. This measures will be provided to each participant at specific times throughout the research project. Only the experimental group will participate in the MTETP.

To help carry out this research project I request your assistance in participating in this research. Your participation in this research project is voluntary and you are free to withdraw at any time without prejudice. I hope, however, that you will find the time to help as the findings from this research will enhance our understanding of Mental Toughness in elite football officiating. Furthermore, this project has been approved by the Faculty of Health and Wellbeing Research Ethics Committee at Sheffield Hallam University.

For further information about the research project, or information about your rights as a participant, please feel free to contact me on 07832 979 491 or by email at [liam.slack@shu.ac.uk](mailto:liam.slack@shu.ac.uk). I greatly appreciate your assistance with this project and we wish to thank you at this point for taking the time to help.

Best regards,

Liam A. Slack

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the Faculty of Health and Wellbeing Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.

Appendix G: Ethics Approval for Pilot Study

Informed Consent Form



Sheffield Hallam University

Faculty of Health and Wellbeing Research Ethics Committee  
Sport and Exercise Research Ethics Review Group

INFORMED CONSENT FORM	
TITLE OF PROJECT: Development and preliminary evaluation of a Mental Toughness Education and Training Programme (MTETP) for English football officiating.	
The participant should complete the whole of this sheet himself.	
Have you read the Participant Information Sheet?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
To whom have you spoken?	YES/NO
..... Do you understand that you are free to withdraw from the study: <ul style="list-style-type: none"><li>• at any time</li><li>• without having to give a reason for withdrawing</li><li>• and without affecting your future medical care</li></ul>	
Have you had sufficient time to consider the nature of this project?	YES/NO
Do you agree to take part in this study?	YES/NO
Signed ..... Date .....	
(NAME IN BLOCK LETTERS).....	
Signature of Parent / Guardian in the case of a minor	
.....	



## FOR USE WHEN STILL OR MOVING IMAGES WILL BE RECORDED

### Consent to scientific illustration

I hereby confirm that I give consent for photographic and/or videotape and sound recordings (the 'material') to be made of me. I confirm that the purpose for which the material would be used has been explained to me in terms which I have understood and I agree to the use of the material in such circumstances. I understand that if the material is required for use in any other way than that explained to me then my consent to this will be specifically sought.

1. I understand that the material will form part of my confidential records and has value in scientific assessment and I agree to this use of the material.

Signed.....

Date.....

Signature of Parent / Guardian in the case of a minor

2. I understand the material has value in teaching and I consent to the material being shown to appropriate professional staff for the purpose of education, staff training and professional development.

Signed.....

Date.....

Signature of Parent / Guardian in the case of a minor

I hereby give consent for the photographic recording made of me on..... to be published in an appropriate journal or textbook. It is understood that I have the right to withdraw consent at any time prior to publication but that once the images are in the public domain there may be no opportunity for the effective withdrawal of consent.

Signed ..... Date

Signature of Parent / Guardian in the case of a minor

## ***Appendix H***

### ***Workshop Structure and Content for Pilot Study***

*Workshop One*

*Workshop Two*

*Workshop Three*

*Workshop Four*

*Workshop Five*

Appendix H: Workshop Structure and Content for Pilot Study

Sheffield Hallam University  
Centre for Sport and Exercise Science

### Mental Toughness Education and Training Programme (MTETP)

Sheffield Hallam University  
Centre for Sport and Exercise Science

### MTETP Workshop 1

Mental Toughness Attributes in Elite English Football Refereeing #1

Sheffield Hallam University  
Centre for Sport and Exercise Science

### Select Group Research

- Mental Toughness Attributes
- Support Networks and Services
- Effective Game Management Qualities
- Multifaceted Pre-Match Preparation
- Performance-Level Enhancement
- Opportunities to Thrive
- Personal Characteristics
- Superior Physical Components

Sheffield Hallam University  
Centre for Sport and Exercise Science

Support Networks and Services

Multifaceted Pre-Match Preparation

Effective Game Management Qualities

**English Football Refereeing Excellence**

Performance-Level Enhancement

Mental Toughness Attributes

Support Networks and Services

Sheffield Hallam University  
Centre for Sport and Exercise Science

### What do you think Mental Toughness is?

Sheffield Hallam University  
Centre for Sport and Exercise Science

### What Mental Toughness is?

Mental Toughness is the presence of some or the entire collection of experientially developed and inherent values, attitudes, emotions, cognitions, and behaviours that influence the way in which an individual approaches, responds to, and appraises both negatively and positively construed pressures, challenges, and adversities to consistently achieve his or her goals. (Coulter et al., 2010)

Sheffield Hallam University  
Centre for Sport and Exercise Science

### Mental Toughness Attributes


- Achievement Striving
- Coping with Pressure
- High Work-Ethic
- Resilience
- Robust Self-Belief
- Sport Intelligence
- Tough Attitude

Sheffield Hallam University  
Centre for Sport and Exercise Science

### Mental Toughness Attribute: Achievement Striving

Guidelines to Potential Success

DANGER SIGNALS    WARNING SIGNALS    POSITIVE SIGNALS



**PROFESSIONAL GAME MATCH OFFICIALS**

**Sheffield  
Hallam  
University**

**Centre for Sport  
and Exercise  
Science**

## Mental Toughness Attribute: Achievement Striving

**⚠ DANGER SIGNALS**

Poor punctuality  
Poor fitness levels

**⚠ WARNING SIGNALS**

Variable sleep pattern

**✅ POSITIVE SIGNALS**

High self-belief  
High fitness levels


 Sheffield Hallam University Centre for Sport and Exercise Science  
**PROFESSIONAL GAME MATCH OFFICIALS**

## Mental Toughness Attribute: Achievement Striving

Goal-Setting Activity



The diagram illustrates the Professional Game Match Officials' Scheme (PGMOS) structure, showing the hierarchy of match officials across different levels of football.

**League Match Officials** (Top Section):

- Referee: 1
- Assistant Referee: 2
- Fourth Official: 1
- Substitute Referee: 1
- Substitute Assistant Referee: 2
- Substitute Fourth Official: 1
- Substitute Substitute Referee: 1
- Substitute Substitute Assistant Referee: 2
- Substitute Substitute Fourth Official: 1

**Professional Game Match Officials** (Middle Section):

- Referee: 1
- Assistant Referee: 2
- Fourth Official: 1
- Substitute Referee: 1
- Substitute Assistant Referee: 2
- Substitute Fourth Official: 1
- Substitute Substitute Referee: 1
- Substitute Substitute Assistant Referee: 2
- Substitute Substitute Fourth Official: 1

**Referee and Assistant Referee** (Bottom Section):

- Referee: 1
- Assistant Referee: 2
- Fourth Official: 1
- Substitute Referee: 1
- Substitute Assistant Referee: 2
- Substitute Fourth Official: 1
- Substitute Substitute Referee: 1
- Substitute Substitute Assistant Referee: 2
- Substitute Substitute Fourth Official: 1

The diagram shows a clear progression from the top level (League Match Officials) down to the bottom level (Referee and Assistant Referee), with each level having its own set of roles and numbers of officials.



**Sheffield Hallam University**

Centre for Sport and Exercise Science

**Mental Toughness Attribute:**

**High Work-Ethic**

- Identify twenty elements of a referee displaying a high work-ethic.



Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Education and Training Programme (MTETP)

Sheffield Hallam University

Centre for Sport and Exercise Science

MTETP Workshop 2

Mental Toughness Attributes in Elite English Football Refereeing #2

Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Attributes

- Achievement Striving
- Coping with Pressure
- High Work-Ethic
- Resilience
- Robust Self-Belief
- Sport Intelligence
- Tough Attitude

Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Attribute: Resilience

"BOUNCE-BACK-ABILITY"

1. How have other sport performers persisted and overcome adversity?
2. How have other football referees persisted and overcome adversity?
3. How have you persisted and overcome adversity in sport and life circumstances?

Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Attribute: Robust Self-Belief

What makes a confident football referee? Let's discuss...

Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Attribute: Tough Attitude

"Go the extra mile" mind-set:

"It is who wants it the most. Who is the most committed? Who is the one who is prepared to go that little bit extra to get more out of themselves in whatever sphere is necessary." (Bull et al., 2005)

"I'm only gonna achieve that through my own hard work, and you've got to back that up by being prepared to put in the hard work." (Bull et al., 2005)

Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Attribute: Tough Attitude

"Focused" mind-set:

"Refusing to be swayed by short-term gains (financial, performance) that will jeopardise the achievement of long-term goals." (Jones et al., 2007)

"Ensuring that achievement of your sport's goal is the number-one priority in your life." (Jones et al., 2007)

"Having an incessant mind-set focused on being the best you can be." (Coulter et al., 2010)

"An unshakable, tough attitude directed towards becoming a champion of the game." (Gucciardi et al., 2008)

Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Attribute: Tough Attitude

"Controlling the Controllables" – Yes, No, or Somewhat!?

Yes	No	Somewhat
• Pre-match Preparation?	• Media scrutiny?	• Injury/illness?
• Effective game management qualities?	• Crowd reactions?	• Equipment

Sheffield Hallam University

Centre for Sport and Exercise Science

How do we cope effectively when refereeing?



### Mental Toughness Education and Training Programme (MTETP)

### MTETP Workshop 3

#### Mental Toughness Attributes in Elite English Football Refereeing #3

### Mental Toughness Attributes

- Achievement Striving
- Coping with Pressure
- High Work-Ethic
- Resilience
- Robust Self-Belief
- Sport Intelligence
- Tough Attitude

### Mental Toughness Attribute: Coping with Pressure

On-field

Develop a list of adaptive coping strategies!

Off-field

### Mental Toughness Attribute: Coping with Pressure

**On-field**

- Consistent pre-match preparation
- Focus/re-focus techniques
- Positive self-talk
- Relaxation strategies
- "What if" scenario planning
- Goal-setting

**Off-field**

- Organisational Preparation
- Effective time management
- Social support outlets
- Coping strategies
- Referee-life balance
- Don't read or listen to media

### Mental Toughness Attribute: Sport Intelligence

Understanding European and World football?

Being a shrewd referee?

Understanding your role within the team?

Knowledge of players/manager personalities?

Being a student of the sport?

Thinking on your feet?

Understanding the impact substitutions might play?

A feeling for the way football is played?

Played football for a number of years?

Anticipating future on-field events?

Having strong tactical awareness?

Making good decisions?

Knowing your own refereeing strengths?

Understanding the English Premier League environment?

### Mental Toughness Attribute: Sport Intelligence

As events go during a [English Premier League] game, things are very fluid, so you have to think on your feet all the time. You do need a feeling for the game, you really do. You think, am I in the right place? What could happen here? Maybe I could move there a little bit? So it's not just being self-aware of your performance after the game, it's also being self-aware during the game to try and get every decision right.

### Rank Mental Toughness Attributes

(A) Achievement Striving  
(B) Coping with Pressure  
(C) High Work-Ethic  
(D) Resilience  
(E) Robust Self-Belief  
(F) Sport Intelligence  
(G) Tough Attitude

→

(1) \_\_\_\_\_  
(2) \_\_\_\_\_  
(3) \_\_\_\_\_  
(4) \_\_\_\_\_  
(5) \_\_\_\_\_  
(6) \_\_\_\_\_  
(7) \_\_\_\_\_

### Mental Toughness Attributes

Select Group Ratings:

### "Applied Relaxation" Activity



Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Education and Training Programme (MTETP)






Sheffield Hallam University

Centre for Sport and Exercise Science

MTETP Workshop 4

Situations Demanding Mental Toughness: Awareness Training #1





Sheffield Hallam University


Centre for Sport and Exercise Science

Match-Day Related Situations

- Pre-Match (5)
- During-Match (8)
- Post-Match (4)

Off-Field Situations

- Elite-Level Football Environment (6)
- Refereeing-General (3)
- Life-General (5)



Sheffield Hallam University

Centre for Sport and Exercise Science

During-Match Situations

- Player (s) reaction to a decision
- Manager (s) reaction to a decision
- Manager confrontation
- Player vs. player altercation
- Mass-player confrontation
- A confrontational decision
- A game-changing decision
- Not dwelling on decisions




Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Type Behaviours

- A. Clear commands and signals
- B. Strong body language
- C. Work hard [18 yard] box-to-box
- D. Use facial expressions
- E. Make eye-contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on-field time for yourself






Sheffield Hallam University

Centre for Sport and Exercise Science

During-Match Situations: Player (s) Reaction to a Decision





Sheffield Hallam University

Centre for Sport and Exercise Science


Situation: Player (s) Reaction to a Decision

Behaviours:

- A. Clear commands and signals
- B. Strong body language
- C. Work hard box to box
- D. Use facial expressions
- E. Make eye-contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on-field time for yourself

Rank your top 3 most important behaviours!

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

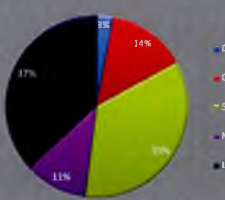


Sheffield Hallam University

Centre for Sport and Exercise Science

Select Group Results

Situation: Player (s) reaction to a decision and Confrontation



Behaviours

- Create on-field time for yourself
- Clear commands and signals
- Strong body language
- Make eye-contact with player (s)
- Looking calm and composed



Sheffield Hallam University

Centre for Sport and Exercise Science

During-Match Situations: Manager (s) Reaction to a Decision

Manager Confrontation





Sheffield Hallam University

Centre for Sport and Exercise Science

Can you identify other similar manager confrontation situations?



Sheffield Hallam University

Centre for Sport and Exercise Science

### During-Match Situations: Player vs. Player Altercation

Sheffield Hallam University

Centre for Sport and Exercise Science

### Mental Toughness Type Behaviours

- A. Clear commands and signals
- B. Strong body language
- C. Work hard box to box
- D. Use facial expressions
- E. Make eye-contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on-field time for yourself

Sheffield Hallam University

Centre for Sport and Exercise Science

### Mental Toughness type behaviour – Act as a barrier between players

- When is it appropriate to act as a barrier between players?
- How is it appropriate to act as a barrier between players?

Sheffield Hallam University

Centre for Sport and Exercise Science

### During-Match Situations: Mass-Player Confrontation

Sheffield Hallam University

Centre for Sport and Exercise Science

### Mental Toughness Type Behaviours

- A. Clear commands and signals
- B. Strong body language
- C. Work hard box to box
- D. Use facial expressions
- E. Make eye-contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on-field time for yourself

Sheffield Hallam University

Centre for Sport and Exercise Science

### Situation: Mass-player confrontation

Behaviours:

- A. Clear commands and signals
- B. Strong body language
- C. Work hard box to box
- D. Use facial expressions
- E. Make eye-contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on-field time for yourself

Rank your top 3 most important behaviours!

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Select Group Results

Situation: Mass-player confrontation

Behaviours

- Create on-field time for yourself
- Clear commands and signals
- Strong body language
- Use of facial expressions
- Looking calm and composed
- Act as a barrier between players

Sheffield Hallam University

Centre for Sport and Exercise Science

### Match-Day Related Situations

- Pre-Match (5)
- During-Match (8)
- Post-Match (4)

### Off-Field Situations

- Elite-Level Football Environment (6)
- Refereeing-General (3)
- Life-General (5)

Sheffield Hallam University

Centre for Sport and Exercise Science

### “What-If Scenario” Exercise #1

Situation: Pre-match Press Conference Outburst

- Managers/players discuss your age, lack of refereeing experience, and recent performances in a pre-match press conference two days prior to the match...

Sheffield Hallam University




Centre for Sport and Exercise Science

### “What-If Scenario” Exercise #2

Situation: Refereeing a high-profile match at Wembley

- Describe your routine from the point of arriving to Wembley (90mins before kick-off) to leaving the dressing room for the kick off.



**PROFESSIONAL GAME MATCH OFFICIALS**

**Sheffield Hallam University**

**Centre for Sport and Exercise Science**

**Match-Day Related Situations**

- Pre-Match (5)
- During-Match (8)
- Post-Match (4)

**Off-Field Situations**

- Elite-Level Football Environment (6)
- Refereeing-General (3)
- Life-General (5)





**PROFESSIONAL GAME MATCH OFFICIALS**

**Sheffield Hallam University**

**Centre for Sport and Exercise Science**

**"What-If Scenario" Exercise #3**

**Situation:** Evening TV Programme Scrutinising Performance

- Match went well, but the media picked-up on a mistake (s) later that night.







**PROFESSIONAL GAME MATCH OFFICIALS**

**Sheffield Hallam University**

**Centre for Sport and Exercise Science**

**"What-If Scenario" Exercise #4**

**Situation:** Personal Press Intrusion

- A reporter/journalist is waiting outside your home as you arrive back from a controversial refereeing performance...







**PROFESSIONAL GAME MATCH OFFICIALS**

**Sheffield Hallam University**

**Centre for Sport and Exercise Science**

**"What-If Scenario" Exercise #5**

**Situation:** Early-Season Media Scrutiny

- The start of the new season is going well, however, recent press reports are still discussing/highlighting your previous performances/decisions from late last season...



PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

**Mental Toughness Education and Training  
Programme (MTETP)**



PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

CSES

Centre for Sport  
and Exercise Science

**MTETP Workshop 5**

**Situations Demanding Mental Toughness:  
Awareness Training #2**



PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

*How do we lose focus on  
refereeing performance and  
"switch-off"*



PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

**External Distractions**

1. Crowd noise/reaction

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_



PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

**Internal Distractions**

1. Negative thoughts

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_



PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

*How do we stay focused on  
refereeing performance and keep our  
head "inside the 90 minutes"*



PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

**P. A. R. C. UP!!**

**P.** Personal Dialogue - Awareness of "Self-talk".

**A.** Acknowledge - Acknowledge and understand thoughts and emotions.

**R.** Rationalise - Rationalise thoughts and emotions. **HOW??**

**C.** Change - Change thoughts to process/performance-orientated thinking.

PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

**R. Rationalise - Rationalise thoughts and emotions **HOW??****



Yes, you've made a mistake but then you have to be able to bounce-back from that (performance) and put it to one side. So it's about having that resilience... It's having a positive frame of mind and maintaining a positive frame of mind for your next game... That has got to be one of the most important things certainly within a high-profile environment that we're in; refereeing in the [English] Premier League.

PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

**R. Rationalise - Rationalise thoughts and emotions **HOW??****



It's the belief in your own ability to deal with particular situations when refereeing. It's not a case of going all scatty (absent-minded) about things and thinking I'm not sure about this, I'm not sure about that, it's actually thinking I know what I'm doing here... You have to go 100% with your convictions, then that's trust in yourself. It's just the belief that you can do the job [English Premier League refereeing].

PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
University

Centre for Sport  
and Exercise  
Science

**R. Rationalise - Rationalise thoughts and emotions **HOW??****



Whilst [football] managers criticise you at the end of a match, it's having that ability to let go of that, particularly if a game's not gone well. It's actually taking positives and not dwelling on the negatives... It's taking the learning points and moving forward.

292


PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

R. Rationalise - Rationalise thoughts and emotions

HOW??



For the last 20 minutes of the game on Saturday I've got people left, right, and centre telling me I've made a wrong decision. So I've now got to park that up (decision) and put it right at the back of my mind because I've still got another 30 to 40 decisions to make in this game.


PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

R. Rationalise - Rationalise thoughts and emotions

HOW??



I'm from a Police background and you just think it's only a game of football and it's just a sport... It's not as if you're going to a car wrapped round a tree or knocking on someone's door and telling them their daughter's been killed in a road traffic accident. It's not the end of the world is it?


PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

C. Change -

Change negative thoughts to process/performance-orientated thinking



Focus and Re-Focus Techniques


PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

C. Change -

Change negative thoughts to process/performance-orientated thinking




1. Remove intrusive/negative thoughts!

PROFESSIONAL GAME MATCH OFFICIALS


Sheffield Hallam University

Centre for Sport and Exercise Science


1. "Thought Stopping" - Seeing is believing



PARKING



STOP



BLACK BOX

Doubling your decision/s

Referee coach feedback

Media scrutiny

Personal rewards

Crowd noise/reaction

Match Day Assessor mark

Merit table positioning

Future appointments

Future promotions

Player/coach reactions


PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University


Centre for Sport and Exercise Science

C. Change -

Change negative thoughts to process/performance-orientated thinking



2. Substitute negative thoughts with positive ones!!



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

2. "Stay in the left-hand lane" - Driving your way to success

Strong Body language

Angles

Positioning/movement

Awareness on own emotions


Awareness of players' emotions

Work ethic

Encourage

Communication

Referee in the present/moment



ENERGY

Match Day Assessor marks

Merit table positioning

Future appointments

Future promotions

Doubling your decision/s

Referee coach feedback

Media scrutiny

Player/coach reaction

Crowd noise/reaction

Anxiety


PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

C. Change -

Change negative thoughts to process/performance-orientated thinking



3/4. Stay in the present!!

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

3. "Walk the Self-Talk" - Mental Power Steering

Parking

decision/performance

"Bring it home"

"Stay in the zone"

"Referee in 15mins blocks"

"Get the next decision right"

"Make strong decisions"

"Start Strong, Stay Strong"

"Back in the game"

"Work hard for the next 5 mins"

"Stay on your toes"

"Be consistent"

"Draw on refereeing/life experiences"

"Bet tough"

"Strong 10 mins"

"Attack the space"

"I will perform better in my next game"

"Watch the ball"

"Angles, angles, angles"

"RELAX"

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

4. "Walk the Walk" - Just do it

Parking

decision/performance

"Attack the space"

"Accelerate through the half-way line"

"Snap the wristband"

"Squeeze your fist"

"D.E.E.P Breath"

"Stay on your toes"

"Use breaks in play to re-focus"

"SMILE"

"Use the crowd to re-focus"

"Squeeze the whistle"

"Feel your watch"


"stop-B.R.E.A.T.H.E-play"

"Talk to assistant referees"

"Talk to yourself"

"Use half-time to re-focus"

293



Sheffield Hallam University

Centre for Sport and Exercise Science

### Mental Toughness Type Cognitions

A. Draw on refereeing experiences	J. Confidence in match-day officials' ability
B. Draw on life experiences	K. Trust in decisions
C. Awareness of elite-level football	L. Park-up/bin a decision
D. Use the crowd to re-focus	M. Focus on next decision/s
E. Use half-time to re-focus	N. Focus on the next 15 minutes
F. Use breaks in play to re-focus	O. Block-out crowd noise
G. Awareness of own emotions	
H. Awareness of players' emotions	
I. Confidence in own ability	



Sheffield Hallam University

Centre for Sport and Exercise Science

### During-Match Situations

- Player (s) reaction to a decision
- Manager (s) reaction to a decision
- Manager confrontation
- Player vs. player altercation
- Mass-player confrontation
- *A confrontational decision*
- *A game-changing decision*
- *Not dwelling on decisions*



Sheffield Hallam University

Centre for Sport and Exercise Science

### Thank You For Taking Part

Liam A. Stack  
 Centre for Sport and Exercise Science  
 Sheffield Hallam University  
 Sheffield  
 UK  
 S10 2BP  
 Email: [liam.stack@shu.ac.uk](mailto:liam.stack@shu.ac.uk)  
 Tel: +44 (0) 114 225 5368

Sheffield Hallam University

Centre for Sport and Exercise Science

## ***Appendix I***

### ***Example Transcript of Pilot Study Social Validation Questionnaire***

**Appendix I: Example Transcript of Pilot Study Social Validation  
Questionnaire**

***Mental Toughness Education and Training Programme (MTETP) for  
investment English football Referees***



*Open-Ended Social Validation Questionnaire – Referee 1*

**Section A:** Thoughts about the aims of the MTETP?

This programme focused on different aspects of your on and off-field performance, looking at your behaviours, your mind, and the mental aspects rather than physical positioning and things like that. So this programme was important to improve my on and off-field performance in terms of mental toughness and focus. It was important to improve areas in which I can't really practice usually, to ensure that I was getting the best out of my ability as a referee.

I enjoyed the content of all the workshops and how they were presented and carried out. I also felt the atmosphere was relaxed rather than 'you say we listen' type thing. The sessions were interesting and how they were presented, have a laugh sort of and that it was an easy environment rather than an awkward one where you daren't say anything if you know what I mean.



**Section B:** Thoughts about the structure and procedures that were applied throughout the MTETP?

Preparing for tough situations like a red or yellow card, or a penalty kick and successfully dealing with those situations really did work and I know every situation is different in every game but it really has worked for me... It's certainly improved my consistency during this season... So when I caution somebody I have a routine now and it's just got me into those good habits like where I stand, how I show the card and things like that.

Goal-setting was a key aspect of the first workshop for me when improving my mental toughness. This was the main thing I took from the session and it has helped me to set realistic targets, in terms of the short, medium, and long term goals as well as the process and performance goals. So since we did the goal-setting back in May I have since adapted these goals. It's developed my confidence massively, because if you don't know what you're achieving or what you want to achieve you cannot take that into your games. So when I achieve my targets I take that into my games and now my goals change when I achieve those.

When we came to the mental toughness profiling in a later workshop I found that I really improved on several of the attributes and other attributes that still needed work. So working on these attributes throughout the course of the programme has helped my performance a great deal I'll be talking to myself now if I feel myself switching off. My self-talk is to grip my whistle and stick my chest out and that would be my way of focussing. Rather than looking at things in a negative situation way, I turn things around to look at the positive side now. I try and look at the positive aspects rather than dwelling on the negative side which could affect my on field performance. I say 'I know I can do it, I'm capable, I just made a mistake, it's just a mistake and everyone makes them,' rather than thinking I've made a mistake right in front of the dugouts, tare their all thinking I'm crap.

I enjoyed the workshops, I thought it was good how there were two of you and three of us there. From my point of view I felt we got a lot more out of it because it focused on us and our performances rather than a broader range of people. It felt professional and you could really engage because the small group really helped focus on my specific self and my own refereeing ability. I felt more relaxed and felt comfortable to discuss anything openly and honestly. Just felt really comfortable to discuss any issues and to get feedback from a neutral person and from someone who has played football as well.

It was good that we did the programme in pre-season because I've started this season well and taken many aspects of the programme into my games. So it got me mentally ready for the start of the season and we are all fighting for that end of season goal which is to get promoted so to have these workshops beforehand has really motivated to stay focused on my refereeing and really give it a good go.

**Section C:** How the MTETP and the workshops within have affected your on-field refereeing performance?

I've found myself in big situations this season and particularly a red card situation a few days ago... really relaxed and composed and not biting my whistle for instance. So I just found myself having a big deep breath and counting down from five seconds to just regain composure and telling myself to calm down.

I've had a lot bigger games this season and I've coped with them well, with sort of well-known players in the area or the nasty players and their shouting at me and things like that. I can cope with it now after the sessions, rather than really get worried about it and taking offence to things. I really feel I can cope with that pressure now.

My self-belief at the start of the workshops was rather low and I thought that there were lots of other young referees better than me. Because my confidence was relatively low, I felt that I couldn't really cope with the pressure in certain games that had a lot riding on them. However, after going through the mental toughness workshops, I now feel confident in my own ability, can cope with the pressure, laugh and 'shrug' off silly mistakes unlike before.

When I got promoted to level five that started a new set of challenges for me, so the programme really helped me adjust to that transition, because there's a lot of young referees who are very competitive and willing to learn. Setting my goals before the start of the season really helped me with the transition and focus on my performance and what I wanted to achieve this season with my assessor marks and club marks.

I've been appointed to a top game in three weeks and it just becomes a bigger game, there will be more fans and police at the game and both managers have been talking about the game already. So the programme has helped me cope with all these pressures that you're not aware of given that the football at this level now becomes more serious with the players getting paid and stuff.

I have a look at the teams I am refereeing and understanding what the game may be like given those two teams. So I started doing a bit of homework on the teams before matches by checking the league tables and results of the teams, and talking to other referees. So it's not just understanding what mental toughness is on the pitch, it's off it as well that matters and makes you realise what you have to do to be a mentally tough referee.

It's helped me understand that everyone makes mistakes and it's just putting those mistakes behind you during a game, focussing on the rest of the game, and clearing your mind because you can get caught up in making more mistakes. So it's helped me to break up the game in five minute and 10 minute periods. So if anything happens during that time you I can park it up put it behind me and start on the next five or 10 minutes.



The work we did about pre-match routine made me feel more relaxed, that everything was under control, and I knew what I needed to do. It improved my self-discipline and how I was managing to look after myself, like going to sleep at an early time the night of the game, don't drink, and eat the right things before the game things like that. I've started packing my kit the night before a game, replying to people's emails, and projecting myself as a referee in a real positive manner and how I come across as a person.

It's not just dwelling on bad decisions, it's when you make good decisions and people are saying he's a good referee and I've had a good 10 minutes there. It's not saying to yourself 'I can walk through this game now' and falling into that comfort zone. So when it's going really well it's not dwelling on those good decisions and making sure you're focussed for the next 10 minute period and the entire game from first to last minute. I think what the programme has helped me do is when I give a tough decision I put that to the back of my mind, concentrate on what's in front of me, not lose that focus, and have that ability not to switch-off.

**Section D:** Thoughts about the potential development areas of the MTETP and the workshops within?

I think that if players get filmed so should the referees, they do at the highest level and have learnt a lot by doing this. I think filming at my level is where you really need it, I'd love to video my games and then then watch them afterwards and analyse them. So if we could watch our own games and footage and look at my mental toughness that would help me a lot I think.

I try to watch as much football as I can so I think it's not only watching your own clips but watching the footage of referees at my level and watching or talking to how Premier League referees deal with certain mentally tough situations. I'd also benefit going to watch top-level referees and the matches they undertake to get a feel for the game and types of situations in the stadium and actually being there.

I'd like the programme to be a bit longer and particularly throughout the whole of the season. Maybe we could have had some one-to-one sessions to discuss certain issues around mental toughness and then at the end of the month for instance all come together and have a group session or meeting. So maybe have three or four group meetings throughout the season, one in pre-season, one during the season and one post-season and have individual meetings throughout that time.

## ***Appendix J***

### ***Mental Toughness Questionnaire-48***

**Appendix J: Mental Toughness Questionnaire-48**

***Sport-General Measurement of Mental Toughness***

**Self-Rating of Mental Toughness**

***Referee:***

***Signed:***

***Date of Completion:***

Please indicate your response to the following items by **circling one** of the numbers, which have the following meaning;

**1** = strongly disagree; **2** = disagree; **3** = neither agree nor disagree; **4** = agree; **5** = strongly agree

Please answer these items carefully, **thinking about how you are generally**. Do not spend too much time on any one item.

**ANSWER THE QUESTIONS HONESTLY –**

	« Disagree Agree »				
1) I usually find something to motivate me	1	2	3	4	5
2) I generally feel in control	1	2	3	4	5
3) I generally feel that I am a worthwhile person	1	2	3	4	5
4) Challenges usually bring out the best in me	1	2	3	4	5
5) When working with other people I am usually quite influential	1	2	3	4	5
6) Unexpected changes to my schedule generally throw me	1	2	3	4	5
7) I don't usually give up under pressure	1	2	3	4	5
8) I am generally confident in my own abilities	1	2	3	4	5
9) I usually find myself just going through the motions	1	2	3	4	5
10) At times I expect things to go wrong	1	2	3	4	5
11) "I just don't know where to begin" is a feeling I usually have when presented with several things to do at once	1	2	3	4	5
12) I generally feel that I am in control of what happens in my life	1	2	3	4	5

13) However bad things are, I usually feel they will work out positively in the end	1	2	3	4	5
14) I often wish my life was more predictable	1	2	3	4	5
15) Whenever I try to plan something, unforeseen factors usually seem to wreck it	1	2	3	4	5
16) I generally look on the bright side of life	1	2	3	4	5
17) I usually speak my mind when I have something to say	1	2	3	4	5
18) At times I feel completely useless	1	2	3	4	5
19) I can generally be relied upon to complete the tasks I am given	1	2	3	4	5
20) I usually take charge of a situation when I feel it is appropriate	1	2	3	4	5
21) I generally find it hard to relax	1	2	3	4	5
22) I am easily distracted from tasks that I am involved with	1	2	3	4	5
23) I generally cope well with any problems that occur	1	2	3	4	5
24) I do not usually criticise myself even when things go wrong	1	2	3	4	5
25) I generally try to give 100%	1	2	3	4	5
26) When I am upset or annoyed I usually let others know	1	2	3	4	5
27) I tend to worry about things well before they actually happen	1	2	3	4	5
28) I often feel intimidated in social gatherings	1	2	3	4	5
29) When faced with difficulties I usually give up	1	2	3	4	5
30) I am generally able to react quickly when something unexpected happens	1	2	3	4	5
31) Even when under considerable pressure I usually remain calm	1	2	3	4	5
32) If something can go wrong, it usually will	1	2	3	4	5
33) Things just usually happen to me	1	2	3	4	5
34) I generally hide my emotion from others	1	2	3	4	5

« Disagree Agree »					
35) I usually find it difficult to make a mental effort when I am tired	1	2	3	4	5
36) When I make mistakes I usually let it worry me for days after	1	2	3	4	5
37) When I am feeling tired I find it difficult to get going	1	2	3	4	5
38) I am comfortable telling people what to do	1	2	3	4	5
39) I can normally sustain high levels of mental effort for long periods	1	2	3	4	5
40) I usually look forward to changes in my routine	1	2	3	4	5
41) I feel that what I do tends to make no difference	1	2	3	4	5
42) I usually find it hard to summon enthusiasm for the tasks I have to do	1	2	3	4	5
43) If I feel somebody is wrong, I am not afraid to argue with them	1	2	3	4	5
44) I usually enjoy a challenge	1	2	3	4	5
45) I can usually control my nervousness	1	2	3	4	5
46) In discussions, I tend to back-down even when I feel strongly about something	1	2	3	4	5
47) When I face setbacks I am often unable to persist with my goal	1	2	3	4	5
48) I can usually adapt myself to challenges that come my way	1	2	3	4	5

## ***Appendix K***

### ***SPSS Outputs for Pilot Study***

Appendix K: SPSS Outputs for Pilot Study

Cronbach’s Alpha

MTETP Group Pre-Intervention

Challenge

Reliability

Scale: ALL VARIABLES

Case Processing Summary			
		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.936	8

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q4	22.6667	49.333	.997	.914
Q6	23.3333	42.333	.989	.909
Q14	22.6667	49.333	.997	.914
Q23	23.3333	42.333	.989	.909
Q30	23.0000	49.000	.866	.921
Q40	24.0000	64.000	.000	.960
Q44	23.6667	44.333	.737	.939
Q48	24.0000	57.000	.803	.935

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
26.6667	64.333	8.02081	8



**Commitment**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.717	11

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	38.0000	21.000	.929	.564
Q7	38.0000	21.000	.929	.564
Q11	37.6667	30.333	.454	.684
Q19	37.6667	22.333	.672	.630
Q22	38.6667	25.333	.993	.599
Q25	37.6667	49.333	-.997	.848
Q29	37.6667	36.333	.000	.724
Q35	38.3333	42.333	-.843	.787
Q39	37.3333	30.333	.891	.659
Q42	37.6667	36.333	.000	.724
Q47	38.0000	25.000	.866	.607

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
41.6667	36.333	6.02771	11

**Control of Emotions**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.568	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q21	18.0000	9.000	.500	.444
Q26	19.0000	7.000	.945	.229
Q27	18.6667	6.333	.918	.189
Q31	17.3333	8.333	.500	.432
Q34	16.6667	17.333	-.971	.762
Q37	18.6667	17.333	-.971	.762
Q45	17.6667	6.333	.918	.189

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
21.0000	13.000	3.60555	7

**Control of Life**

**Reliability**

**Scale: ALL VARIABLES**

Case Processing Summary			
		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.608	7

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2	18.0000	9.000	1.000	.311
Q5	18.6667	9.333	.756	.386
Q9	19.3333	12.333	.822	.486
Q12	18.6667	6.333	.954	.189
Q15	19.0000	21.000	-.655	.819
Q33	19.6667	12.333	.822	.486
Q45	18.6667	17.333	-.277	.762

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
22.0000	16.000	4.00000	7

**Confidence in Own Ability**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.607	9

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q3	25.0000	13.000	.908	.322
Q8	24.6667	16.333	.990	.397
Q10	26.0000	31.000	-.933	.725
Q13	25.3333	25.333	-.115	.677
Q16	24.6667	16.333	.990	.397
Q18	26.0000	9.000	.961	.212
Q24	25.6667	32.333	-.703	.766
Q32	25.3333	20.333	.896	.506
Q36	26.6667	25.333	.000	.617

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
28.6667	25.333	5.03322	9

**Interpersonal Confidence**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.508	6

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q17	17.0000	13.000	.961	.321
Q20	18.3333	4.333	1.000	-.385 <sup>a</sup>
Q28	18.0000	27.000	-.756	.895
Q38	17.3333	16.333	.143	.510
Q43	18.3333	9.333	.945	.089
Q46	19.3333	9.333	.945	.089

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
21.6667	17.333	4.16333	6

**Total Mental Toughness**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.948	48

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	158.0000	741.000	.950	.943
Q2	157.6667	766.333	.993	.944
Q3	158.0000	741.000	.950	.943
Q4	157.6667	766.333	.993	.944
Q5	158.3333	770.333	.790	.945
Q6	158.3333	737.333	.997	.943
Q7	158.0000	741.000	.950	.943
Q8	157.6667	766.333	.993	.944
Q9	159.0000	796.000	.798	.946
Q10	159.0000	853.000	-.919	.951
Q11	157.6667	789.333	.569	.946
Q12	158.3333	737.333	.997	.943
Q13	158.3333	816.333	.071	.949
Q14	157.6667	766.333	.993	.944
Q15	158.6667	857.333	-.615	.952
Q16	157.6667	766.333	.993	.944
Q17	157.0000	796.000	.798	.946
Q18	159.0000	709.000	.983	.942
Q19	157.6667	745.333	.782	.945
Q20	158.3333	716.333	.912	.943
Q21	158.6667	846.333	-.430	.951
Q22	158.6667	766.333	.993	.944
Q23	158.3333	737.333	.997	.943

Q24	158.6667	857.333	-.615	.952
Q25	157.6667	880.333	-.994	.954
Q26	159.6667	789.333	.569	.946
Q27	159.3333	816.333	.071	.949
Q28	158.0000	844.000	-.270	.953
Q29	157.6667	822.333	.000	.948
Q30	158.0000	763.000	.909	.944
Q31	158.0000	763.000	.909	.944
Q32	158.3333	792.333	.913	.946
Q33	159.3333	792.333	.913	.946
Q34	157.3333	826.333	-.131	.949
Q35	158.3333	849.333	-.812	.951
Q36	159.6667	822.333	.000	.948
Q37	159.3333	826.333	-.131	.949
Q38	157.3333	826.333	-.131	.949
Q39	157.3333	792.333	.913	.946
Q40	159.0000	819.000	.091	.948
Q41	158.3333	792.333	.913	.946
Q42	157.6667	822.333	.000	.948
Q43	158.3333	770.333	.790	.945
Q44	158.6667	745.333	.782	.945
Q45	158.3333	816.333	.071	.949
Q46	159.3333	770.333	.790	.945
Q47	158.0000	763.000	.909	.944
Q48	159.0000	796.000	.798	.946

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
161.6667	822.333	28.67635	48

**MTETP Group Post-Intervention**

**Challenge**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.731	8

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q4	31.0000	7.000	.327	.722
Q6	31.6667	4.333	.721	.628
Q11	31.6667	4.333	.721	.628
Q23	31.0000	7.000	.327	.722
Q30	31.3333	5.333	1.000	.583
Q40	31.6667	8.333	.000	.747
Q44	30.6667	8.333	.000	.747
Q48	30.6667	8.333	.000	.747

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
35.6667	8.333	2.88675	8



**Commitment**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.814	11

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	45.0000	19.000	.993	.760
Q7	44.6667	22.333	.305	.813
Q11	45.3333	16.333	.866	.748
Q19	44.3333	24.333	.000	.822
Q22	45.0000	19.000	.993	.760
Q25	44.3333	24.333	.000	.822
Q29	44.3333	24.333	.000	.822
Q35	46.0000	13.000	.817	.769
Q39	44.6667	22.333	.305	.813
Q42	45.0000	19.000	.397	.819
Q47	44.6667	21.333	.500	.799

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
49.3333	24.333	4.93288	11

**Control of Emotions**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.628	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q21	25.0000	7.000	.990	.229
Q26	25.0000	16.000	.000	.700
Q27	24.6667	6.333	.918	.253
Q31	23.6667	17.333	.000	.646
Q34	24.6667	17.333	.000	.646
Q37	24.6667	16.333	.000	.686
Q45	24.3333	14.333	.610	.558

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
28.6667	17.333	4.16333	7

**Control of Life**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.640	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2	26.0000	7.000	.982	.457
Q5	26.6667	10.333	.000	.658
Q9	26.6667	6.333	.596	.505
Q12	26.3333	4.333	.971	.277
Q15	26.0000	12.000	-.500	.767
Q33	26.0000	12.000	-.500	.767
Q41	26.3333	4.333	.971	.277

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
30.6667	10.333	3.21455	7

**Confidence in Own Ability**

**Reliability**

**Scale: ALL VARIABLES**

Case Processing Summary		
		N
		%
Cases	Valid	3
	Excluded <sup>a</sup>	3
	Total	6
		50.0
		50.0
		100.0

Reliability Statistics	
Cronbach's Alpha	N of Items
.699	9

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q3	30.6667	12.333	.000	.710
Q8	30.6667	12.333	.000	.710
Q10	32.6667	10.333	.156	.737
Q13	31.0000	13.000	-.240	.762
Q16	31.0000	9.000	.866	.593
Q18	31.6667	6.333	.993	.481
Q24	34.3333	12.333	-.082	.741
Q32	32.0000	9.000	.866	.593
Q36	31.3333	6.333	.803	.541

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
35.6667	12.333	3.51188	9

**Interpersonal Confidence**

**Reliability**

**Scale: ALL VARIABLES**

Case Processing Summary			
		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

Reliability Statistics	
Cronbach's Alpha	N of Items
.686	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q17	22.0000	7.000	.655	.595
Q20	22.0000	7.000	.655	.595
Q28	22.0000	7.000	.655	.595
Q38	22.0000	7.000	.655	.595
Q43	22.3333	6.333	.918	.526
Q46	23.0000	7.000	.000	.952

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
26.6667	9.333	3.05505	6

**Total Mental Toughness**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.938	48

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	203.0000	349.000	.927	.935
Q2	202.6667	352.333	.769	.936
Q3	202.3333	369.333	.000	.939
Q4	202.6667	366.333	.121	.939
Q5	203.3333	369.333	.000	.939
Q6	203.3333	332.333	.987	.933
Q7	202.6667	366.333	.121	.939
Q8	202.3333	369.333	.000	.939
Q17	202.6667	366.333	.121	.939
Q20	202.6667	366.333	.121	.939
Q28	202.6667	366.333	.121	.939
Q38	202.6667	366.333	.121	.939
Q43	203.0000	349.000	.927	.935
Q46	203.6667	316.333	.932	.932
Q9	203.3333	356.333	.318	.939
Q10	204.3333	346.333	.591	.936
Q11	203.3333	332.333	.987	.933
Q12	203.0000	336.000	.756	.935
Q13	202.6667	366.333	.121	.939
Q14	202.6667	352.333	.769	.936
Q15	202.6667	366.333	.121	.939
Q16	202.6667	352.333	.769	.936
Q18	203.3333	332.333	.987	.933
Q19	202.3333	369.333	.000	.939

Q21	203.6667	316.333	.932	.932
Q22	203.0000	349.000	.927	.935
Q23	202.6667	366.333	.121	.939
Q24	206.0000	373.000	-.179	.940
Q25	202.3333	369.333	.000	.939
Q26	203.6667	377.333	-.208	.944
Q27	203.3333	320.333	.742	.936
Q29	202.3333	369.333	.000	.939
Q30	203.0000	349.000	.927	.935
Q31	202.3333	369.333	.000	.939
Q32	203.6667	352.333	.769	.936
Q33	202.6667	366.333	.121	.939
Q34	203.3333	369.333	.000	.939
Q35	204.0000	327.000	.724	.935
Q36	203.0000	336.000	.756	.935
Q37	203.3333	346.333	.591	.936
Q39	202.6667	366.333	.121	.939
Q40	203.3333	369.333	.000	.939
Q41	203.0000	336.000	.756	.935
Q42	203.0000	336.000	.756	.935
Q44	202.3333	369.333	.000	.939
Q45	203.0000	349.000	.927	.935
Q47	202.6667	352.333	.769	.936
Q48	202.3333	369.333	.000	.939

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
207.3333	369.333	19.21805	48

**Control Group Pre-Intervention**

**Challenge**

**Reliability**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.662	8

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q4	26.6667	4.333	.693	.538
Q6	27.6667	6.333	-.115	.737
Q14	28.0000	3.000	.500	.648
Q23	27.3333	6.333	.000	.675
Q30	28.0000	4.000	.866	.486
Q40	27.3333	6.333	.000	.675
Q44	27.0000	4.000	.866	.486
Q48	27.3333	6.333	.000	.675

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
31.3333	6.333	2.51661	8



**Commitment**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.746	11

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	37.6667	22.333	.977	.680
Q7	37.6667	22.333	.977	.680
Q11	38.3333	17.333	.971	.620
Q19	37.6667	30.333	-.419	.794
Q22	39.6667	44.333	-.918	.944
Q25	38.3333	24.333	.585	.715
Q29	37.6667	22.333	.977	.680
Q35	38.6667	22.333	.977	.680
Q39	38.3333	17.333	.971	.620
Q42	38.0000	19.000	.918	.643
Q47	38.0000	19.000	.918	.643

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
42.0000	28.000	5.29150	11

**Control of Emotions**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.725	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q21	22.0000	9.000	.866	.622
Q26	22.6667	8.333	.189	.864
Q27	23.3333	9.333	.327	.729
Q31	22.0000	9.000	.866	.622
Q34	22.3333	12.333	.000	.746
Q37	23.6667	9.333	.756	.643
Q45	22.0000	9.000	.866	.622

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
26.3333	12.333	3.51188	7

**Control of Life**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.864	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2	21.6667	6.333	.803	.821
Q5	22.6667	6.333	.803	.821
Q9	22.3333	6.333	.803	.821
Q12	21.6667	9.333	-.189	.943
Q15	22.6667	6.333	.803	.821
Q33	22.6667	6.333	.803	.821
Q41	22.3333	6.333	.803	.821

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
26.0000	9.000	3.00000	7

**Confidence in Own Ability**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.887	9

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q3	29.3333	37.333	.982	.847
Q8	29.0000	43.000	.924	.868
Q10	30.3333	30.333	.891	.854
Q13	29.6667	44.333	.737	.876
Q16	29.0000	52.000	-.240	.916
Q18	29.3333	46.333	.220	.904
Q24	30.0000	43.000	.924	.868
Q32	29.6667	36.333	.910	.849
Q36	30.3333	30.333	.891	.854

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
33.3333	50.333	7.09460	9

**Interpersonal Confidence**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.890	6

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q17	19.6667	8.333	.500	.900
Q20	20.0000	7.000	.982	.833
Q28	21.0000	7.000	.982	.833
Q38	20.3333	10.333	.000	.927
Q43	20.0000	7.000	.982	.833
Q46	20.6667	4.333	.971	.865

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
24.3333	10.333	3.21455	6

**Total Mental Toughness**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.961	48

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	179.0000	516.000	.991	.959
Q2	179.0000	516.000	.991	.959
Q3	179.3333	500.333	.916	.958
Q4	178.6667	526.333	.591	.960
Q5	180.0000	516.000	.991	.959
Q6	179.6667	532.333	.363	.961
Q7	179.0000	516.000	.991	.959
Q8	179.0000	516.000	.991	.959
Q9	179.6667	526.333	.591	.960
Q10	180.3333	465.333	.990	.958
Q11	179.6667	490.333	.991	.958
Q12	179.0000	553.000	-.405	.963
Q13	179.6667	526.333	.591	.960
Q14	180.0000	511.000	.575	.960
Q15	180.0000	516.000	.991	.959
Q16	179.0000	553.000	-.405	.963
Q17	178.6667	526.333	.591	.960
Q18	179.3333	537.333	.086	.963
Q19	179.0000	559.000	-.623	.964
Q20	179.0000	516.000	.991	.959
Q21	179.0000	516.000	.991	.959
Q22	181.0000	592.000	-.700	.971
Q23	179.3333	542.333	.000	.961

Q24	180.0000	516.000	.991	.959
Q25	179.6667	532.333	.363	.961
Q26	179.6667	540.333	-.005	.966
Q27	180.3333	500.333	.916	.958
Q28	180.0000	516.000	.991	.959
Q29	179.0000	516.000	.991	.959
Q30	180.0000	516.000	.991	.959
Q31	179.0000	516.000	.991	.959
Q32	179.6667	490.333	.991	.958
Q33	180.0000	516.000	.991	.959
Q34	179.3333	542.333	.000	.961
Q35	180.0000	516.000	.991	.959
Q36	180.3333	465.333	.990	.958
Q37	180.6667	532.333	.363	.961
Q38	179.3333	542.333	.000	.961
Q39	179.6667	490.333	.991	.958
Q40	179.3333	542.333	.000	.961
Q41	179.6667	526.333	.591	.960
Q42	179.3333	506.333	.778	.959
Q43	179.0000	516.000	.991	.959
Q44	179.0000	516.000	.991	.959
Q45	179.0000	516.000	.991	.959
Q46	179.6667	490.333	.991	.958
Q47	179.3333	506.333	.778	.959
Q48	179.3333	542.333	.000	.961

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
183.3333	542.333	23.28805	48

**Control Group Post-Intervention**

**Challenge**

**Reliability**

**Scale: ALL VARIABLES**

Case Processing Summary			
		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

Reliability Statistics	
Cronbach's Alpha	N of Items
.707	8

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q4	27.0000	7.000	.000	.722
Q6	28.6667	4.333	.971	.538
Q14	28.6667	4.333	.277	.808
Q23	28.6667	4.333	.971	.538
Q30	29.0000	7.000	.000	.722
Q40	27.0000	7.000	.000	.722
Q44	27.3333	6.333	.115	.737
Q48	27.6667	4.333	.971	.538

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
32.0000	7.000	2.64575	8



**Commitment**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.624	11

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	36.0000	13.000	-.240	.684
Q7	35.6667	12.333	.000	.631
Q11	36.6667	6.333	.993	.351
Q19	35.3333	12.333	-.082	.661
Q22	36.0000	7.000	.655	.476
Q25	35.0000	9.000	.866	.494
Q29	35.3333	12.333	-.082	.661
Q35	36.6667	6.333	.993	.351
Q39	36.3333	9.333	.756	.516
Q42	36.6667	12.333	.000	.631
Q47	37.0000	16.000	-.866	.764

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
39.6667	12.333	3.51188	11

**Control of Emotions**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.667	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q21	21.6667	5.333	.500	.600
Q26	22.0000	4.000	.500	.600
Q27	23.6667	5.333	.500	.600
Q31	22.0000	7.000	.000	.686
Q34	21.6667	6.333	.115	.695
Q37	23.0000	3.000	.866	.400
Q45	22.0000	7.000	.000	.686

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
26.0000	7.000	2.64575	7

**Control of Life**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.667	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2	19.6667	2.333	.000	.686
Q5	20.6667	2.333	.000	.686
Q9	20.6667	2.333	.000	.686
Q12	20.0000	1.000	.866	.400
Q15	20.6667	2.333	.000	.686
Q33	20.3333	1.333	.500	.600
Q41	20.0000	1.000	.866	.400

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
23.6667	2.333	1.52753	7

**Confidence in Own Ability**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.871	9

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q3	28.0000	21.000	.655	.853
Q8	26.6667	22.333	.977	.836
Q10	27.3333	17.333	.971	.813
Q13	27.6667	30.333	-.419	.917
Q16	26.6667	30.333	-.419	.917
Q18	27.0000	19.000	.918	.822
Q24	28.6667	22.333	.977	.836
Q32	27.6667	22.333	.977	.836
Q36	28.3333	17.333	.971	.813

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
31.0000	28.000	5.29150	9

**Interpersonal Confidence**

**Reliability**

**Scale: ALL VARIABLES**

Case Processing Summary			
		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

Reliability Statistics	
Cronbach's Alpha	N of Items
.700	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q17	21.6667	4.333	-.277	.865
Q20	21.0000	4.000	.000	.729
Q28	22.3333	2.333	.756	.536
Q38	21.6667	2.333	.756	.536
Q43	21.6667	2.333	.756	.536
Q46	21.6667	2.333	.756	.536

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
26.0000	4.000	2.00000	6

**Total Mental Toughness**

**Reliability**

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	3	50.0
	Excluded <sup>a</sup>	3	50.0
	Total	6	100.0

**Reliability Statistics**

Cronbach's Alpha	N of Items
.936	48

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	174.6667	234.333	.321	.936
Q2	174.3333	240.333	.000	.937
Q3	175.3333	212.333	.926	.930
Q4	173.3333	240.333	.000	.937
Q5	175.3333	240.333	.000	.937
Q6	175.0000	223.000	.986	.932
Q7	174.3333	240.333	.000	.937
Q8	174.0000	223.000	.986	.932
Q17	174.0000	247.000	-.386	.940
Q20	173.3333	240.333	.000	.937
Q28	174.6667	229.333	.610	.934
Q38	174.0000	223.000	.986	.932
Q43	174.0000	223.000	.986	.932
Q46	174.0000	223.000	.986	.932
Q9	175.3333	240.333	.000	.937
Q10	174.6667	206.333	.985	.929
Q11	175.3333	212.333	.926	.930
Q12	174.6667	234.333	.321	.936
Q13	175.0000	252.000	-.655	.942
Q14	175.0000	229.000	.286	.938
Q15	175.3333	240.333	.000	.937
Q16	174.0000	252.000	-.655	.942
Q18	174.3333	217.333	.746	.932

Q19	174.0000	247.000	-.386	.940
Q21	174.0000	223.000	.986	.932
Q22	174.6667	206.333	.985	.929
Q23	175.0000	223.000	.986	.932
Q24	176.0000	223.000	.986	.932
Q25	173.6667	229.333	.610	.934
Q26	174.3333	236.333	.098	.940
Q27	176.0000	223.000	.986	.932
Q29	174.0000	247.000	-.386	.940
Q30	175.3333	240.333	.000	.937
Q31	174.3333	240.333	.000	.937
Q32	175.0000	223.000	.986	.932
Q33	175.0000	223.000	.986	.932
Q34	174.0000	247.000	-.386	.940
Q35	175.3333	212.333	.926	.930
Q36	175.6667	206.333	.985	.929
Q37	175.3333	212.333	.926	.930
Q39	175.0000	223.000	.986	.932
Q40	173.3333	240.333	.000	.937
Q41	174.6667	234.333	.321	.936
Q42	175.3333	240.333	.000	.937
Q44	173.6667	229.333	.610	.934
Q45	174.3333	240.333	.000	.937
Q47	175.6667	258.333	-.988	.944
Q48	174.0000	223.000	.986	.932

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
178.3333	240.333	15.50269	48

## ***Appendix L***

### ***Ethics Approval for Study Three***

*Application for ethics approval of research*

*Risk Assessment Pro Forma*

*Participant Information Sheet*

*Informed Consent Form*



## Appendix L: Ethics Approval for Study Three

Application for Ethics Approval of Research

### CONFIDENTIAL



*Sheffield Hallam University*

**Faculty of Health and Wellbeing  
Research Ethics Committee**

**Sport & Exercise Research Ethics Review Group**

### APPLICATION FOR ETHICS APPROVAL OF RESEARCH

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Sport and Exercise Research Ethics Review Group before approving a project. **ALL** of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

<b>1) Date of application</b>	August 2012
<b>2) Anticipated date of completion of project</b>	April 2013
<b>3) Title of research</b>	An evaluation of a Mental Toughness education and training programme (MTETP) for early career English Football League referees.
<b>4) Subject area</b>	Sport and Performance Psychology
<b>5) Principal Investigator</b>  Name Email address @ SHU Telephone/Mobile number Student number (if applicable)	  Liam Andrew Sla liam.slack@shu.ac.uk 0114 225 5368 / 07832 979 491 B20002333
<b>6) State if this study is:</b> (If the project is undergraduate or postgraduate please state module name and number)	<input checked="" type="checkbox"/> Research <input type="checkbox"/> Undergraduate <input type="checkbox"/> Postgraduate  Module name:  Module number:
<b>7) Director of Studies/Supervisor/Tutor name</b>	Director of Studies: Prof. Ian W. Maynard Second Supervisor (1): Dr. Joanne Butt Second Supervisor (2): Dr. Peter Olusoga

<b>8) Intended duration and timing of project?</b>	<b>Jul 2012-</b> Preparation of participant list and initial contact with potential participants. <b>Aug 2012-</b> Recruitment of participants. <b>Aug-Nov 2012-</b> Implementation of MTETP workshops. <b>Dec 2012- Jan 2013-</b> Data analysis carried out. <b>Jan-April 2013-</b> Write up of study.
<b>9) Location of project</b> If external to SHU, provide evidence in support (see section 17)	The research project will be conducted at Sheffield Hallam University, participants training facilities or a location of their choice.
<b>10) State if this study is:</b>	<input checked="" type="checkbox"/> New <input type="checkbox"/> Collaborative (please include appropriate agreements in section 17) <input type="checkbox"/> Replication of :
<b>11) Purpose and benefit of the research</b> Statement of the research problem with any necessary background information (no more than 1 side of A4)	
<p>Study one of the Ph.D. titled "Factors underpinning football officiating excellence: Perceptions of English Premier League referees" highlighted that Select Group referees displayed seven psychological characteristics that captured Mental Toughness attributes. These specific attributes included: (a) achievement striving, (b) coping with pressure, (c) high work-ethic, (d) resilience, (e) robust self-belief, (f) sport intelligence, (g) tough attitude. In a bid to gain a greater understanding of Mental Toughness, study two of the Ph.D. titled "Understanding mental toughness in elite football officiating: Perceptions of English Premier League referees" explored various mental toughness subcomponents (i.e., situations, behaviours, cognitions). Specifically, findings identified numerous situations perceived by Select Group referees to demand Mental Toughness and included three match-day related situations: (a) pre-match situations, (b) during-match situations, (c) post-match situations, and three off-field situations: (a) elite-level football environment situations, (b) refereeing-general situations, (c) life-general situations. In addition, results highlighted key behaviours (e.g., act as a barrier between players) and cognitions (e.g., draw on life and refereeing experiences) deployed by Select Group referees throughout these situations.</p> <p>In accordance, we plan to use the research findings in an effort to evaluate a Mental Toughness Education and Training Programme (MTETP) for developing English Football League referees. It is anticipated that taking the findings acknowledged at the elite-level and integrating them into a programme for developing referees might enhance performance. Specifically, the research findings will inform the content and structure of the MTETP. It is important to note, study three of the Ph.D. titled "An evaluation of a Mental Toughness Education and Training Programme (MTETP) for investment football referees" has been conducted as a pilot study for the present study. In doing so, the necessary refinements have been made to the programme in a bid to maximise its effectiveness on developing English Football League referees' performance. One particular refinement has been the integration</p>	

of video footage in an effort to further illustrate Mental Toughness attributes and behaviours in English Premier League football refereeing. The MTETP has been tailored for developing English Football League referees. In brief, the MTETP is designed to develop and enhance Mental Toughness and improve refereeing performance.

<b>12) Participants</b>	
<b>12.1 Number</b>	This study will involve 3-5 English Football League referees and two referee coaches.
<b>12.2 Rationale for this number</b> (eg calculations of sample size, practical considerations)	The sample size for this study will be purposefully selected (Patton, 2002) in order to provide a depth and richness to the information gathered. Based on previous single-subject design research of this nature (e.g., Bell, Skinner, & Fisher, 2009; Freeman, Rees, & Hardy, 2009; Thelwell, Greenlees, & Weston, 2006) a total of five English Football League referees will be recruited to actively participate in the study. This sample size is considered adequate in order to generate sufficient data whilst taking into account the logistics and practicalities of recruiting participants, conducting the MTETP workshops, and analysing the data within the proposed timescale.
<b>12.3 Criteria for inclusion and exclusion</b> (eg age and sex)	All referees must be a first or second year current English Football League referee and all coaches must be an active English Football League referee coach.
<b>12.4 Procedures for recruitment</b> (eg location and methods)	A purposive selection procedure (Patton, 2002) will be utilised to recruit potential participants for this investigation. Following completion of institutional ethics approval procedures, participants will be contacted initially via phone/e-mail and invited to participate. For those who agree to participate, a letter of information outlining the intention and prospective benefits of the investigation, as well as a detailed account of participation requirements will be administered. In addition, convenient times and locations for the MTETP workshops will be agreed.

	<p>To ensure confidentiality, an informed-consent form will be given to each participant. In addition, it will be made clear the present study will be voluntary in nature and are permitted to withdraw any time throughout its duration. MTETP workshops will be conducted at Sheffield Hallam University, Lancashire FA, University of Warwick, and Premier League office or Herts FA and all at a time that is convenient with each participant's schedule. In most cases, the interviewer (principal researcher) will travel to the participants to conduct the MTETP workshops.</p>
<b>12.5 Does the study have *minors or ‡vulnerable adults as participants?</b>	[ ] Yes      [✓] No
<b>12.6 Is CRB Disclosure required for the Principal Investigator?</b> (to be determined by Risk Assessment)	[ ] Yes      [✓] No If yes, is standard [ ] or enhanced [ ] disclosure required?
<b>12.7 If you ticked 'yes' in 12.5 and 'no' in 12.6 please explain why:</b>	

\*Minors are participants under the age of 18 years.  
 ‡Vulnerable adults are participants over the age of 16 years who are likely to exhibit:

- a) learning difficulties
- b) physical illness/impairment
- c) mental illness/impairment
- d) advanced age
- e) any other condition that might render them vulnerable

<p><b>13) Details of the research design</b></p> <p><b>13.1 Provide details of intended methodological procedures and data collection.</b>          (For MSc students conducting a scientific support project please provide the following information: a. needs analysis; b. potential outcome; c proposed interventions).</p> <p><b><i>Procedure</i></b></p> <p>The research design will consist of two phases: (a) baseline, and (b) intervention. The baseline phase will be staggered across participants to eliminate any threats to internal validity (e.g., experimental bias, history effects), throughout, objective and subjective Mental Toughness measures and performance assessment scores (i.e., Match-day assessor report) will be completed and recorded. It is important to note, no MTETP will be provided at this point to the participants. During the intervention phase participants will be given the MTETP. Given that the baseline phase will be staggered across participants, the intervention will be implemented at different time points for each participant (i.e., number of matches/weeks). The order in which each</p>
--



participant receives the MTETP will be randomly determined at the start of data collection. In addition, to alleviate the risk of a type II error, each participant will receive the MTETP for the same number of weeks/matches (e.g., 20 matches).

The implementation of the MTETP will consist of a series of monthly workshops conducted individually with each participant at Sheffield Hallam University or at a place and time most convenient to each participant. Each workshop will be conducted by the first author. It is anticipated that five-to-six workshops will be scheduled and last approximately 2 ½ - 3 hours per workshop (please see page 15). In line with previous applied sport psychology research (Gilbert et al., 2006), the MTETP will follow a Game-Plan format and incorporate extensive educational material, assessments, activities, video-footage analysis, quizzes, and homework (e.g., workbook exercises) assignments designed specifically for the programme. In accordance with the baseline phase, objective and subjective Mental Toughness measures and performance assessment scores (i.e., Match-day assessor report) will be completed and recorded.

### ***Measures***

Objective and subjective self- and coach-report ratings of Mental Toughness for all participants will be obtained throughout both the baseline and intervention phases. This multi-source rating approach is believed to strengthen the reliability of the findings by alleviating some of the concerns associated with self-report data (e.g., social desirability).

#### ***Mental Toughness***

Mental Toughness Questionnaire-48 (MTQ-48; Clough et al., 2002) will be administered to measure Mental Toughness in which participants throughout both the baseline and intervention phases will complete. Accordingly, the MTQ48 is a 48-item, self-report measure that takes on average 10-15mins to complete. The MTQ48 comprises six subscales: (a) challenge, (b) commitment, (c) life control, (d) emotional control, (e) confidence in own abilities, (f) interpersonal confidence. In addition, subjective ratings measuring mental toughness attributes and behaviours specific to football officiating performance will be recorded.

#### ***Refereeing Performance Outcomes***

The English Football Association match-day assessor referee assessment form will be obtained to gain feedback on performance outcomes during both the baseline and intervention phases. Accordingly, this assessment form measures five performance-related outcomes: (a) application of the "Laws of the Game," and disciplinary control, (b) management of game and players, (c) personality, (d) teamwork, and (e) fitness, positioning, and movement.

#### ***Social Validation***

In addition to assessing statistical significance, academics have also expressed the importance of evaluating the practical importance of applied interventions. Thus, gaining each participant's response to the MTETP and the experimental outcomes is crucial in determining the effectiveness of the MTETP. In line with this and based on existing social validation questionnaires, an open-ended questionnaire will be structured in four parts: (a) thoughts about the aims of the MTETP, (b) the structure and procedures that were applied through the MTETP, (c) how satisfied participants were with the MTETP, (d) how the MTETP proved

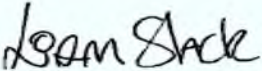
beneficial for each participant.
<b>13.2 Are these "minor" procedures as defined in Appendix 1 of the ethics guidelines?</b>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>13.3 If you answered 'no' in section 13.2, list the procedures that are <u>not</u> minor</b>
<b>13.4 Provide details of the quantitative and qualitative analysis to be used</b>
<p>The aim of our analysis was to examine changes in Mental Toughness and performance outcomes among five participants across baseline and intervention phases. In addition, a further aim was to determine whether the observed effects were consistent across two rating sources (self- and coach-ratings). Therefore, each dependent variable (e.g., objective Mental Toughness subscale scores, subjective Mental Toughness ratings, performance outcomes scores) will be graphed and visually analysed to evaluate the effects of the MTETP intervention (Hrycaiko &amp; Martin, 1996). This visual inspection of single-subject data evaluates the immediacy and level of change across baseline and intervention phases, amount of overlapping data points across phrases, and changes in slope and/or variability across phrases (Thelwell, Greenlees, &amp; Weston, 1996). Additional statistical methods will also be employed to examine possible trends in the data (e.g., <math>X^2</math> analysis, independent t-tests, effect size). Finally, social validation procedures will be undertaken and completed individually in a setting most convenient to each participant. Social validation data will be inductively content analysed (Patton, 2002) by the team of researchers. Meetings were held with the team until all themes were established and consensus had been upheld on all statements (Lincoln &amp; Guba, 1985).</p>

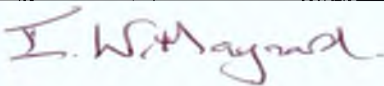
<b>14) Substances to be administered (refer to Appendix V of the ethics procedures).</b>
<b>14.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements.</b>
Please tick box if this statement applies and go to section 15) <input checked="" type="checkbox"/>
<b>14.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.</b>

<b>15) Degree of discomfort that participants might experience</b>
Consider the degree of physical and psychological discomfort that will be experienced by the participants. State the details which must be included in the participant information sheet to ensure that the participants are fully informed about any discomfort that they may experience.
<p>Due to the nature of the study, it is believed that the participants will not experience any physical or psychological discomfort during the MTETP intervention. Furthermore, the participants will be reminded that anonymity and confidentiality will be assured and that they may withdraw from the investigation at any time. This information will be included on the Participation Information Sheet.</p>

<p><b>16) Outcomes of Risk Assessment</b></p> <p>Provide details of the risk and explain how the control measures will be implemented to manage the risk.</p> <p><u>Control Measures</u></p> <p><u>Participant feeling slight discomfort during the MTETP intervention</u></p> <p>All MTETP workshop material will remain anonymous. Participants do not have to answer specific questions if they choose not to throughout the MTETP workshops. Participants are free to withdraw from the study at any time.</p>
--

<b>17) Attachments</b>	<b>Tick box</b>
<b>17.1 Risk assessment</b> (including CRB risk assessment)	✓
<b>17.2 COSHH assessment</b>	
<b>17.3 Participant information sheet</b> (this should be addressed directly to the participant (i.e., you will etc.) and in a language they will understand)	✓
<b>17.4 Informed consent form</b>	✓
<b>17.5 Pre-screening questionnaire</b>	
<b>17.6 Collaboration evidence/support correspondence from the organisation consenting to the research</b> (this must be on letterhead paper and signed) See sections 9 & 10.	
<b>17.7 CRB Disclosure certificate</b> <u>or</u> where not available <b>CRB application form</b>	
<b>17.8 Clinical Trails form (FIN 12)</b>	

<p><b>18. Signature Principal Investigator</b></p>	<p>Once this application is approved, I will undertake the research study as approved. If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor. If the supervisor advises that there should be a resubmission to the Sport and Exercise Research Ethics Review Group, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.</p> <p>-  ----- Date <b>08/08/2012</b></p> <p>Principal Investigator signature</p> <p>Name Liam Andrew Slack</p>
<p><b>19. Approval Project Supervisor</b></p> <p>to sign <b>either</b> box A <u>or</u> box B as applicable</p> <p>(refer to Appendix I and the flowchart in appendix VI</p>	<p><b>Box A:</b></p> <p>I confirm that the research proposed is based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore does not need to be submitted to the HWB Sport and Exercise Research Ethics Review Group.</p> <p>In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.</p>

of the ethics guidelines)	 <div style="text-align: right;">Date <b>08/08/2012</b></div> <div>Project Supervisor signature</div> <div>Name Prof. Ian W. Maynard</div>
	<p><b>Box B:</b></p> <p>I confirm that the research proposed is <u>not</u> based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Review Group 'Ethics Procedures for Research with Humans as Participants' document, and therefore <u>must</u> be submitted to the HWB Sport and Exercise Research Ethics Review Group for approval.</p> <p>I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to the HWB Sport and Exercise Research Ethics Review Group.</p> <div style="text-align: right;">Date _____</div> <div>Project Supervisor signature</div> <div>Name _____</div>
<b>20. Signature Technician</b>	<p>I confirm that I have seen the full and approved application for ethics approval and technical support will be provided.</p> <div style="text-align: right;">Date _____</div> <div>Technician signature</div> <div>Name _____</div>

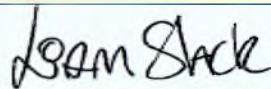



Appendix L: Ethics Approval for Study Three

Risk Assessment Pro Forma

	<p><i>Sheffield Hallam University</i></p> <p><b>Faculty of Health and Wellbeing Research Ethics Committee</b> <b>Sport and Exercise Research Ethics Review Group</b></p> <p><b>Risk Assessment Pro Forma</b></p>
---	--

**\*\*Please ensure that you read the accompanying  
Risk Assessment Risk Ranking document before completing this form\*\***

<b>Title of research</b>	An evaluation of a Mental Toughness Education and Training Programme (MTETP) for early career English Football League referees.	
<b>Date Assessed</b>	08/08/2012	
<b>Assessed by (Principal Investigator)</b>	Mr. Liam Andrew Slack (liam.slack@shu.ac.uk)	
<b>Signed</b>	<b>Position</b>	
	Principal Investigator	
<b>Activity</b>	<b>Risks</b>	<b>Control Measures</b>
MTETP workshops.	<p><b>Risk</b> of [Participants feeling slight discomfort] caused by [discussion of sensitive topics].</p> <p>(R1= C1 x L1) <b>LOW RISK.</b></p>	<p>All MTETP workshop material will remain anonymous and confidential.</p> <p>Participants do not have to answer specific questions if they choose not to.</p> <p>Participants are free to withdraw from the study at any time.</p>

<b>Risk Evaluation (Overall)</b>	
<b>Low</b> Due to the nature of the study, it is believed that the participants will not experience any physical or psychological discomfort during the intervention process. Furthermore, the participants will be reminded that anonymity and confidentiality will be assured, they do not have to answer a question should they choose not to, and that they may withdraw from the investigation at any time. This information will be included on the Participation Information Sheet.	
<b>General Control Measures</b>	
Is a pre-screen medical questionnaire required? Yes [ ] No [✓]  1. Participant given participant Information Sheet. Confirm understanding. 2. Participant reads and signs Informed Consent Form.	
<b>Emergency Procedures</b>	
None	
<b>Monitoring Procedures</b>	
Continuously monitor participants throughout MTETP workshops for signs (verbal and non-verbal) of emotional distress.	
<b>Review Period</b>	Annually
<b>Reviewed By (Supervisor)</b>	<b>Date</b>
 Prof. Ian W. Maynard	08/08/2012

Appendix L: Ethics Approval for Study Three

Participant Information Sheet



Sheffield Hallam University

**Faculty of Health and Wellbeing Research Ethics Committee**

**Sport and Exercise Research Ethics Review Group**

**Participant Information Sheet**

Project Title	An evaluation of a Mental Toughness education and training programme (MTETP) for early career English Football League referees.
Supervisor/Director of Studies	Director of Studies: Prof. Ian W. Maynard Second Supervisor (1): Dr. Joanne Butt Second Supervisor (2): Dr. Peter Olusoga
Principal Investigator	Mr. Liam A. Slack
Principal Investigator telephone/mobile number	0114 225 5368 / 07832 979 491

**Purpose of Study and Brief Description of Procedures**  
*(Not a legal explanation but a simple statement)*

Here at the Centre for Sport and Exercise Science at Sheffield Hallam University, we are currently looking to conduct a study exploring Mental Toughness within English Football League refereeing. With the Professional Game Match Officials Limited (PGMOL) aware of the research project, we plan to use previous English Premier League refereeing research findings to evaluate a Mental Toughness Education and Training Programme (MTETP) for developing English Football League referees. In brief, the MTETP is designed to develop and enhance Mental Toughness and improve refereeing performance.

Specifically, this project will involve eight participants (i.e., five English Football League referees and three referee coaches) attending five fortnightly workshops (three individual-based and two group-based). All individual-based workshops will last around two hours and will be scheduled at a time and place most convenient for each referee. In addition, each participant will be required to partake in two focus-group interviews (one immediately after the end of MTETP and one at the end of the 2012-2013 football season). Finally, all participants will be asked to complete both objective and subjective (i.e., self- and coach-report) measures of Mental Toughness after each referee has undertaken a football match. All measures will be provided to each participant at specific times throughout the research project.

To help carry out this research project I request your assistance in participating in the MTETP. Your participation in this research project is

voluntary and you are free to withdraw at any time without prejudice. I hope, however, that you will find the time to help as the findings from this research will enhance our understanding of Mental Toughness in elite football officiating. Furthermore, this project has been approved by the Faculty of Health and Wellbeing Research Ethics Committee at Sheffield Hallam University.

For further information about the research project, or information about your rights as a participant, please feel free to contact me on 07832 979 491 or by email at [liam.slack@shu.ac.uk](mailto:liam.slack@shu.ac.uk). I greatly appreciate your assistance with this project and we wish to thank you at this point for taking the time to help.

Best regards,

Liam A. Slack

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the Faculty of Health and Wellbeing Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.

Appendix L: Ethics Approval for Study Four

Informed Consent Form

	<p>Sheffield Hallam University</p> <p><b>Faculty of Health and Wellbeing Research Ethics Committee</b></p> <p><b>Sport and Exercise Research Ethics Review Group</b></p>
---	--

INFORMED CONSENT FORM	
<p><b>TITLE OF PROJECT:</b> An evaluation of a Mental Toughness education and training programme (MTETP) for early career English Football League referees.</p>	
<p><b>The participant should complete the whole of this sheet himself.</b></p>	
Have you read the Participant Information Sheet?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
To whom have you spoken?	YES/NO
<p>.....</p> <p>Do you understand that you are free to withdraw from the study:</p> <ul style="list-style-type: none"><li>• at any time</li><li>• without having to give a reason for withdrawing</li><li>• and without affecting your future medical care</li></ul>	
Have you had sufficient time to consider the nature of this project?	YES/NO
Do you agree to take part in this study?	YES/NO
Signed ..... Date .....	
.....	
(NAME IN BLOCK LETTERS).....	
Signature of Parent / Guardian in the case of a minor	
.....	

**FOR USE WHEN STILL OR MOVING IMAGES WILL BE RECORDED**

**Consent to scientific illustration**

I hereby confirm that I give consent for photographic and/or videotape and sound recordings (the 'material') to be made of me. I confirm that the purpose for which the material would be used has been explained to me in terms which I have understood and I agree to the use of the material in such circumstances. I understand that if the material is required for use in any other way than that explained to me then my consent to this will be specifically sought.

1. I understand that the material will form part of my confidential records and has value in scientific assessment and I agree to this use of the material.

Signed.....

Date.....

Signature of Parent / Guardian in the case of a minor

2. I understand the material has value in teaching and I consent to the material being shown to appropriate professional staff for the purpose of education, staff training and professional development.

Signed.....

Date.....

Signature of Parent / Guardian in the case of a minor

I hereby give consent for the photographic recording made of me on..... to be published in an appropriate journal or textbook. It is understood that I have the right to withdraw consent at any time prior to publication but that once the images are in the public domain there may be no opportunity for the effective withdrawal of consent.

Signed ..... Date

Signature of Parent / Guardian in the case of a minor

## ***Appendix M***

### ***Workshop Structure and Content for Study Three***

*Workshop One*

*Workshop Two*

*Preparation for Workshop Three*

*Workshop Three*

*Workshop Four*

*Workshop Five*



# Appendix M: Workshop Structure and Content for Study Three

## Workshop One

Sheffield Hallam University

Centre for Sport and Exercise Science

**Mental Toughness Education and Training Programme (MTETP) for Developing English Football League Referees**

Sheffield Hallam University

Centre for Sport and Exercise Science

**MTETP Workshop 1**

Mental Toughness Attributes in Elite English Football Refereeing

Sheffield Hallam University

Centre for Sport and Exercise Science

**Select Group Research**

- **Mental Toughness Attributes**
- Support Networks and Services
- Effective Game Management Qualities
- Multifaceted Pre-Match Preparation
- Performance-Level Enhancement
- Opportunities to Thrive
- Personal Characteristics
- Superior Physical Components

Sheffield Hallam University

Centre for Sport and Exercise Science

Support Networks and Services

Multifaceted Pre-Match Preparation

Effective Game Management Qualities

**English Football Refereeing Excellence**

Performance-Level Enhancement

Mental Toughness Attributes

Support Networks and Services

Sheffield Hallam University

Centre for Sport and Exercise Science

**What do you think Mental Toughness is?**

Sheffield Hallam University

Centre for Sport and Exercise Science

**What Mental Toughness is?**

Mental Toughness is the presence of some or the entire collection of experientially developed and inherent values, attitudes, emotions, cognitions, and behaviours that influence the way in which an individual approaches, responds to, and appraises both negatively and positively construed pressures, challenges, and adversities to consistently achieve his or her goals. (Coulter et al., 2010)

Sheffield Hallam University

Centre for Sport and Exercise Science

**Mental Toughness Attributes**

- Coping with Pressure
- High Work-Ethic
- Resilience
- Robust Self-Belief
- Achievement Striving
- Refereeing Intelligence
- Tough Attitude

Sheffield Hallam University

Centre for Sport and Exercise Science

**Mental Toughness Attribute:**

**Coping with Pressure**

On-field

Develop a list of adaptive coping strategies!

Off-field



Sheffield Hallam University
Centre for Sport and Exercise Science

### Mental Toughness Attribute: Coping with Pressure

**On-field**

- Consistent pre-match preparation
- Focus/re-focus techniques
- Positive self-talk
- Relaxation strategies
- "What if" scenario planning
- Goal-setting

**Off-field**

- Organisational Preparation
- Effective time management
- Social support outlets
- Coping strategies
- Referee-life balance
- Don't read or listen to media

Sheffield Hallam University
Centre for Sport and Exercise Science

### Mental Toughness Attribute: Tough Attitude

**"Go the extra mile" mind-set:**

"It is who wants it the most. Who is the most committed? Who is the one who is prepared to go that little bit extra to get more out of themselves in whatever sphere is necessary." (Bull et al., 2005)

"I'm only gonna achieve that through my own hard work, and you've got to back that up by being prepared to put in the hard work." (Bull et al., 2005)

Sheffield Hallam University
Centre for Sport and Exercise Science

### Mental Toughness Attribute: Tough Attitude

**"Focused" mind-set:**

"Refusing to be swayed by short-term gains (financial, performance) that will jeopardise the achievement of long-term goals." (Jones et al., 2007)

"Ensuring that achievement of you sport's goal is the number-one priority in your life." (Jones et al., 2007)

"Having an incessant mind-set focused on being the best you can be." (Coulter et al., 2010)

"An unshakable, tough attitude directed towards becoming a champion of the game." (Gucciardi et al., 2008)

Sheffield Hallam University
Centre for Sport and Exercise Science

### Mental Toughness Attribute: Tough Attitude

**"Controlling the Controllables" – Yes, No, or Somewhat?!**

Yes	No	Somewhat
• Pre-match Preparation?	• Media scrutiny?	• Injury/illness?
• Effective game management qualities?	• Crowd reactions?	• Equipment

Sheffield Hallam University
Centre for Sport and Exercise Science

### Mental Toughness Attribute: High Work-Ethic

- Identify five elements of this referee displaying a high work-ethic during this footage.



Sheffield Hallam University
Centre for Sport and Exercise Science

### Mental Toughness Attribute: High Work-Ethic

- Good anticipation of the potential counter-attack.
- Accelerates through the half-way line.
- Clear and measured "play-on" signal.
- Works hard (18 yard) box to box.
- On top of the action/close proximity to the incident.
- Achieves the optimal viewing angle.
- Clear commands and signals when giving the free-kick.
- Good anticipation and movement upon the re-start of play.

Sheffield Hallam University
Centre for Sport and Exercise Science

### Mental Toughness Attribute: Resilience

**"BOUNCE-BACK-ABILITY"**

- How have other sport performers persisted and overcome adversity?
- How have other football referees persisted and overcome adversity?
- How have you persisted and overcome adversity in sport and life circumstances?

Sheffield Hallam University
Centre for Sport and Exercise Science

### Mental Toughness Attribute: Robust Self-Belief

What makes a confident football referee? Let's discuss...

Sheffield Hallam University
Centre for Sport and Exercise Science


### Mental Toughness Attribute: Achievement Striving

**Guidelines to Potential Success**

DANGER SIGNALS

WARNING SIGNALS

POSITIVE SIGNALS



# Sheffield Hallam **University**

**PROFESSIONAL GAME MATCH OFFICIALS**

**Centre for Sport  
and Exercise  
Science**

## Mental Toughness Attribute: Achievement Striving

<p><b>DANGER SIGNALS</b></p> <ul style="list-style-type: none"> <li>• Fear preoccupation</li> <li>• Fear fitness levels</li> <li>• _____</li> <li>• _____</li> <li>• _____</li> </ul>	<p><b>WARNING SIGNALS</b></p> <ul style="list-style-type: none"> <li>• Yawning distraction</li> <li>• _____</li> <li>• _____</li> <li>• _____</li> </ul>	<p><b>POSITIVE SIGNALS</b></p> <ul style="list-style-type: none"> <li>• High self-belief</li> <li>• High fitness levels</li> <li>• _____</li> <li>• _____</li> <li>• _____</li> </ul>
---	--	---


 Sheffield Hallam University  
 Centre for Sport and Exercise Science

# Mental Toughness Attribute: Achievement Striving

## Goal-Setting Activity

[illegible]



**PROFESSIONAL GAME  
MATCH OFFICIALS**

**Sheffield  
Hallam  
University**

**Centre for Sport  
and Exercise  
Science**

## Mental Toughness Attribute: Refereeing Intelligence

*Understanding European and World football?*

*Being a shrewd referee?*

*Understanding your role within the team?*

*Knowledge of players/manager personalities?*

*Being a student of the game?*

*Thinking on your feet?*

*Understanding the latest substitutions might play?*



*A feeling for the way football is played?*

*Played football for a number of years?*


*Anticipating future on-field events?*

*Having strong tactical awareness?*

*Making good decisions?*

*Forecasting your own refereeing strengths?*

*Understanding the English Premier League environment?*


 **PROFESSIONAL GAME  
MATCH OFFICIALS**

**Sheffield  
Hallam  
University**

**Centre for Sport  
and Exercise  
Science**

## Mental Toughness Attribute: Sport Intelligence

As events go during a [English Premier League] game, things are very fluid, so you have to think on your feet all the time. You do need a feeling for the game, you really do. You think, am I in the right place? What could happen here? Maybe I could move there a little bit? So it's not just being self aware of your performance after the game, it's also being self aware during the game to try and get every decision right.



PROFESSIONAL GAME  
MATCH OFFICIALS

**Sheffield  
Hallam  
University**

**Centre for Sport  
and Exercise  
Science**


## Rank Mental Toughness Attributes

(A) Achievement Striving	(1)	
(B) Coping with Pressure	(2)	
(C) High Work-Ethic	(3)	
(D) Resilience	(4)	
(E) Robust Self-Belief	(5)	
(F) Sport Intelligence	(6)	
(G) Tough Attitude	(7)	

**Mental Toughness Attributes**

*Selected Group Ratings:*


Attribute	Rating (n)
Coping with Pressure	13
Resilience	14
Achievement Seeking	14
Robert's Self-Belief	13
Sport Intelligence	13
Tough Attitude	11
High Work Ethic	10

 Sheffield Hallam University  
PROFESSIONAL GAME MATCH OFFICIALS  
Centre for Sport and Exercise Science

**"What-If Scenario" Exercise**

**Situation:** *Refereeing a high-profile match at Wembley*

- Describe your routine from the point of arriving to Wembley (90mins before kick off) to leaving the dressing room for the kick off.




 Sheffield Hallam University  
 Centre for Sport and Exercise Science

**"Applied Relaxation" Activity**



[illegible]

# Appendix M: Workshop Structure and Content for Study Three

## Workshop Two

Sheffield Hallam University  
Centre for Sport and Exercise Science

**A Mental Toughness Education and Training Programme (MTETP) for Developing English Football League Referees**

Sheffield Hallam University  
Centre for Sport and Exercise Science

**MTETP Workshop 2**

Situations Demanding Mental Toughness: Awareness Training #1

Sheffield Hallam University  
Centre for Sport and Exercise Science

**Match-Day Related Situations**

- Pre-Match (5)
- During-Match (8)**
- Post-Match (4)

**Off-Field Situations**

- Elite-Level Football Environment (6)
- Refereeing-General (3)
- Life-General (5)

Sheffield Hallam University  
Centre for Sport and Exercise Science

**During-Match Situations**

- Player (s) reaction to a decision
- Manager (s) reaction to a decision
- Manager confrontation
- Player vs. player altercation
- Mass-player confrontation
- A confrontational decision
- A game-changing decision
- Not dwelling on decisions

Sheffield Hallam University  
Centre for Sport and Exercise Science

**Mental Toughness Type Behaviours**

- A. Clear commands and signals
- B. Strong body language
- C. Work hard (18 yard) box-to-box
- D. Use facial expressions
- E. Make eye-contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on-field time for yourself

Sheffield Hallam University  
Centre for Sport and Exercise Science

**During-Match Situations: Player (s) Reaction to a Decision**

Sheffield Hallam University  
Centre for Sport and Exercise Science

**Video Footage**

**Situation - Player (s) Reaction to a Decision**

1. Self-Analysis

A. Identify the Mental Toughness type behaviours displayed



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**Situation: Player (s) Reaction to a Decision**

**Behaviours:**

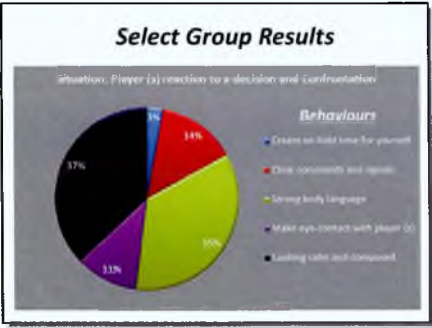
- A. Clear commands and signals
- B. Strong body language
- C. Work hard box to box
- D. Use facial expressions
- E. Make eye-contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on-field time for yourself

**Rank your top 3 most important behaviours!**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**During-Match Situations:  
Manager (s) Reaction to a Decision  
Manager Confrontation**

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**Video Footage - Manager (s) Reaction to a Decision and Confrontation**

- Example - Manager vs. Manager
- Example - Manager talking to Captain
- Example - Manager confrontation down the touchline



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**Can you identify other similar manager confrontation situations?**

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**"What-If Scenario" Exercise**

**1. Self-Analysis -**

What would you do in this particular situation?







**PROFESSIONAL GAME  
MATCH OFFICIALS**

**Sheffield Hallam  
University**

**Centre for Sport  
and Exercise  
Science**

**During-Match Situations:  
Player vs. Player Altercation**







PROFESSIONAL GAME MATCH OFFICIALS

## Mental Toughness Type Behaviours

- Clear commands and signals
- Strong body language
- Work hard box to box
- Use facial expressions
- Make eye-contact with player (s)

***F. Act as a barrier between players***

- Communicate with officials
- Looking calm and composed
- Create on-field time for yourself



 **Sheffield Hallam University** Centre for Sport and Exercise Science

**Video Footage**

**Mental Toughness type behaviour –**  
**Act as a barrier between players**

1. *Example*
2. *Example*






**Sheffield Hallam University**
**Centre for Sport and Exercise Science**

**Mental Toughness type behaviour –**  
**Act as a barrier between players**

1. *When is it appropriate to act as a barrier between players?*
2. *How is it appropriate to act as a barrier between players?*







## During-Match Situations: Mass-Player Confrontation





LEICESTER  
SHEFFIELD HALLAM  
PROFESSIONAL GAME  
MATCH OFFICIALS

**Sheffield  
Hallam  
University**

**Centre for Sport  
and Exercise  
Science**

---

## Mental Toughness Type Behaviours

- A. Clear commands and signals
- B. Strong body language
- C. Work hard box to box
- D. Use facial expressions
- E. Make eye contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on field time for yourself





PROFESSIONAL GAME  
MATCH OFFICIALS

Sheffield  
Hallam  
**University**

Centre for Sport  
and Exercise  
Science

## Video Footage -Mass-Player Confrontation

1. Self-Analysis

A. Identify the Mental Toughness type behaviours displayed.

B. Identify the Mental Toughness type behaviours not displayed.







PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**Situation: Mass-player confrontation**

**Behaviours:**

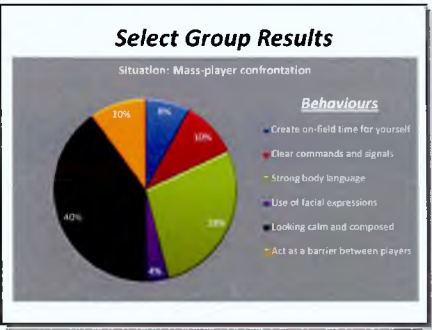
- A. Clear commands and signals
- B. Strong body language
- C. Work hard box to box
- D. Use facial expressions
- E. Make eye-contact with player (s)
- F. Act as a barrier between players
- G. Communicate with officials
- H. Looking calm and composed
- I. Create on-field time for yourself

Rank your top 3 most important behaviours!

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_





# Appendix M: Workshop Structure and Content for Study Three


## Preparation for Workshop Three



Sheffield Hallam University  
Centre for Sport and Exercise Science


**A Mental Toughness Education and Training Programme (MTETP) for Developing English Football League Referees**





Sheffield Hallam University  
Centre for Sport and Exercise Science

**MTETP Workshop 3**  
Situations Demanding Mental Toughness: Role-Playing #1





Sheffield Hallam University  
Centre for Sport and Exercise Science

**What's going to happen next Thursday...**

There will be **3** matches lasting 14mins... 7 mins each half.

Match 1: Referee 1  
Match 2: Referee 2  
Match 3: Referee 3

All **3** matches will be 7 vs. 7.  
All **3** matches will be filmed.





Sheffield Hallam University  
Centre for Sport and Exercise Science

**What's going to happen next Thursday...**

Each match will follow a similar pattern!!!

*First-Half*

- **Player (s) reaction to a decision**  
(e.g., off-side/on-side, yellow/red card, Free-kick, penalty, ball in, ball out)
- **Player vs. player altercation**  
(e.g., captain vs. captain, Midfielder vs. midfielder)

*Second-Half*

- **Mass-player confrontation**





Sheffield Hallam University  
Centre for Sport and Exercise Science

*In preparation for next Thursday here are a few example of...*

**During-Match Situations**

- *Player (s) reaction to a decision*
- *Player vs. player altercation*
- *Mass-player confrontation*



Sheffield Hallam University  
Centre for Sport and Exercise Science

**During-Match Situations:  
Player (s) Reaction to a Decision**







Sheffield Hallam University  
Centre for Sport and Exercise Science

**During-Match Situations:  
Player vs. Player Altercation**





PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**During-Match Situations:  
Mass-Player Confrontation**



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**Finally...**

1. Pick your teams and highlight your individual roles!
2. Remember the situations in each half!
3. Make it as realistic as possible!
4. Be as difficult as you can for each referee!
5. No injuries!
6. Enjoy it!

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University

Centre for Sport and Exercise Science

**ANY QUESTIONS?**



## **Appendix M: Workshop Structure and Content for Study Three**

### **Workshop Three**

Please see the link: <http://youtu.be/JKhxNbBX584>

# Appendix M: Workshop Structure and Content for Study Three

## Workshop Four

**Mental Toughness Education and Training Programme (MTETP) for Developing English Football League Referees**

**MTETP Workshop 4**  
**Situations Demanding Mental Toughness: Awareness Training #2**

*How do we lose focus on refereeing performance and "switch-off"*

**External Distractions**

1. Crowd noise/reaction

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

**Internal Distractions**

1. Negative thoughts

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

*How do we stay focused on refereeing performance and keep our head "inside the 90 minutes"*

**Focus**

**P. A. R. C. UP!!**

**P.** Personal Dialogue - Awareness of "Self-talk".

**A.** Acknowledge - Acknowledge and understand thoughts and emotions.

**R.** Rationalise - Rationalise thoughts and emotions. **HOW??**

**C.** Change - Change thoughts to process/performance-orientated thinking.

**R. Rationalise** - Rationalise thoughts and emotions **HOW??**

Yes, you've made a mistake but then you have to be able to bounce-back from that (performance) and put it to one side. So it's about having that resolve... it's having a positive frame of mind and maintaining a positive frame of mind for your next game... That has got to be one of the most important things certainly within a high-profile environment that we're in; refereeing in the [English] Premier League.

Sheffield Hallam University Centre for Sport and Exercise Science

**R. Rationalise** - Rationalise thoughts and emotions **HOW??**



It's the belief in your own ability to deal with particular situations when refereeing... It's not a case of going all scatty [absent-minded] about things and thinking 'I'm not sure about this, I'm not sure about that, it's actually thinking I know what I'm doing here... You have to go 100% with your convictions, then that's trust in yourself. It's just the belief that you can do the job [English Premier League refereeing].

Sheffield Hallam University Centre for Sport and Exercise Science

**R. Rationalise** - Rationalise thoughts and emotions **HOW??**



Whilst [football] managers criticise you at the end of a match, it's having that ability to let go of that, particularly if a game's not gone well. It's actually taking positives and not dwelling on the negatives... It's taking the learning points and moving forward.

Sheffield Hallam University Centre for Sport and Exercise Science


**R. Rationalise** - Rationalise thoughts and emotions **HOW??**



For the last 20 minutes of the game on Saturday I've got people left, right, and centre telling me I've made a wrong decision. So I've now got to park that up [decision] and put it right at the back of my mind because I've still got another 30 to 40 decisions to make in this game.

Sheffield Hallam University Centre for Sport and Exercise Science

**R. Rationalise** - Rationalise thoughts and emotions **HOW??**




I'm from a Police background and you just think it's only a game of football and it's just a sport... It's not as if you're going to a car wrapped round a tree or knocking on someone's door and telling them their daughter's been killed in a road traffic accident. It's not the end of the world is it?

Sheffield Hallam University Centre for Sport and Exercise Science

**C. Change** -

Change negative thoughts to process/performance-orientated thinking




**Focus and Re-Focus Techniques**

Sheffield Hallam University Centre for Sport and Exercise Science

**C. Change** -

Change negative thoughts to process/performance-orientated thinking



**1. Remove intrusive/negative thoughts!**

Sheffield Hallam University Centre for Sport and Exercise Science

**1. "Thought Stopping"** - Seeing is believing



Doubting your decision/s  
Referee coach feedback  
Media scrutiny  
Personal rewards  
Crowd noise/reaction


Match Day Assessor mark  
Merit table positioning  
Future appointments  
Future promotions  
Player/coach reactions

BLACK BOX


Sheffield Hallam University Centre for Sport and Exercise Science

**C. Change** -

Change negative thoughts to process/performance-orientated thinking



**2. Substitute negative thoughts with positive ones!!**



Sheffield Hallam University Centre for Sport and Exercise Science

**2. "Stay in the left-hand lane"** - Driving your way to success



**+** Strong Body language  
Angles  
Positioning/movement  
Awareness on own emotions  
Awareness of players' emotions  
Work ethic  
Encourage  
Communication  
Referee in the present/moment

**ENERGY**

**-** Match Day Assessor marks  
Merit table positioning  
Future appointments  
Future promotions  
Doubting your decision/s  
Referee coach feedback  
Media scrutiny  
Player/coach reaction  
Crowd noise/reaction

**Anxiety**

Sheffield Hallam University Centre for Sport and Exercise Science

**C. Change** -

Change negative thoughts to process/performance-orientated thinking



**3/4. Stay in the present!!**



Sheffield Hallam University

Centre for Sport and Exercise Science

3. "Walk the Self-Talk" - Mental Power Steering

Past

Present



decision/performance

"Bring it home"  
"Stay in the zone"  
"Referee in 15mins blocks"  
"Get the next decision right"  
"Make strong decisions"  
"Start Strong, Stay Strong"  
"Back in the game"  
"Work hard for the next 5 mins"  
"Stay on your toes"  
"Be consistent"  
"Draw on refereeing/life experiences"

"Get tough"  
"Read the game"  
"Strong 10 mins"  
"Attack the space"  
"Attack the space"  
"Will perform better in my next game"  
"Watch the ball"  
"Angles, angles, angles"  
"R.E.L.A.X."

"Psycho-Up"  
"Read the game"  
"Strong 10 mins"  
"Attack the space"  
"Attack the space"  
"Will perform better in my next game"  
"Watch the ball"  
"Angles, angles, angles"  
"R.E.L.A.X."



Sheffield Hallam University

Centre for Sport and Exercise Science

4. "Walk the Walk" - Just do it

Past


Present



decision/performance

"Attack the space"  
"Accelerate through the half way line"  
"Snap the wristband"  
"Squeeze your fist"  
"D.E.E.P Breath"  
"Stay on your toes"  
"Use breaks in play to re-focus"

"5 M.I.L.E."  
"Use the crowd to re-focus"  
"Squeeze the whistle"  
"Team phrase"  
"Feel your watch"  
"Stop S.R.E.A.T.H.E-play"  
"Talk to assistant referees"  
"Talk to yourself"  
"Use half-time to re-focus"



Sheffield Hallam University

Centre for Sport and Exercise Science

Mental Toughness Type Cognitions

A. Draw on refereeing experiences  
B. Draw on life experiences  
C. Awareness of elite-level football  
D. Use the crowd to re-focus  
E. Use half-time to re-focus  
F. Use breaks in play to re-focus  
G. Awareness of own emotions  
H. Awareness of players' emotions  
I. Confidence in own ability

J. Confidence in match-day officials' ability  
K. Trust in decisions  
L. Park-up/bin a decision  
M. Focus on next decision/s  
N. Focus on the next 15 minutes  
O. Block-out crowd noise



Sheffield Hallam University

Centre for Sport and Exercise Science

During-Match Situations

- Player (s) reaction to a decision
- Manager (s) reaction to a decision
- Manager confrontation
- Player vs. player altercation
- Mass-player confrontation
- A confrontational decision
- A game-changing decision
- Not dwelling on decisions







Appendix M: Workshop Structure and Content for Study Three

Workshop Five

Sheffield Hallam University

Centre for Sport and Exercise Science

**A Mental Toughness Education and Training Programme (MTETP) for Early Career English Football League Referees**

Sheffield Hallam University

Centre for Sport and Exercise Science

**MTETP Workshop 5**

Media Role-Play, Exposure, and Training

Sheffield Hallam University

Centre for Sport and Exercise Science

**Objectives:**

- Participate in a recorded interview with members of the football media.
- Improve awareness of various sources of media and types of issues in the modern-day football environment.
- Gain an understanding of the media in the context of a 'stressor' in football refereeing.
- Awareness and identification of effective coping strategies when dealing with the football media.
- Awareness and response to various media-related situations you could be faced with throughout your refereeing career.

Sheffield Hallam University

Centre for Sport and Exercise Science

**Football Media Interview – Approx. 15mins for each referee**

**Interview Guide - Part A:** General questions on refereeing performance...

1. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

2. How is your refereeing going on the whole?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

3. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

4. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

5. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

6. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

Sheffield Hallam University

Centre for Sport and Exercise Science

**Interview Guide - Part B:** Specific questions on common refereeing and football issues...

1. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

2. How is your refereeing going on the whole?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

3. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

4. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

5. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

6. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

Sheffield Hallam University

Centre for Sport and Exercise Science

**Interview Guide - Part C:** Intrusive questions on personal topics...

1. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

2. How is your refereeing going on the whole?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

3. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

4. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

5. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

6. What do you think about the current situation in refereeing in the English Football league?

➤ Do you think your refereeing skills are improving, staying the same, or declining?

➤ How do you think your refereeing skills are improving, staying the same, or declining?

➤ What do you think about the current situation in refereeing in the English Football league?

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## Football Media Interview

Let's discuss...



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## Sources



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## Types of Football Media Issues...



What else?

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## The football media perceived as a "stressor" in elite football refereeing...



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## Effective "Media-Based" Coping Strategies

- Problem-focused:** Behaviours and cognitions aimed at tackling the source of the media issue (e.g. gaining informational support)
- Emotion-focused:** Strategies aimed at managing one's own emotions as a result of the media issue (e.g. Applied Relaxation)
- Appraisal-focused:** Re-evaluating the media issue and its importance (e.g. rationalising the situation)
- Avoidance-focused:** Disengage or distance yourself from the media issue (e.g. tell friends/peers not to talk about it with you)
- Approach-focused:** Confrontive the media issue and initiating direct action to reduce its effects or likelihood (e.g. "What-If" scenarios)

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## Activity: Identify the coping strategies...

Effective Coping Strategies

Referee 1: "We have a media blackout at our house time, we don't say proper, we don't want a great deal of the football media about us the television because I think more you say on things that it will stay away of you referees."

Referee 2: "I don't like media scrutiny it's being able not to take things personally. It's being able to realise that it's not directed at you it's just directed at refereeing and that's the only football it's always somebody else's fault isn't it?"

Referee 3: "I get phoned, texting and being called and being called in a bad way, you're the referee... for it's not getting that message across to people that a good game the players are important and it doesn't bother me."

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## Effective Coping Strategies

Referee 4: "I surround myself with people who aren't really football people. The more people who I interact with who don't talk to me about football the better... then you don't get into, negative, or football related conversations."

Referee 5: "The other side of the negative media scrutiny and press for the time that might be another and the side you can learn from. You learn its tomorrow's ship today, and you, you might be in the headlines for one or two days but then the world's moved on and you're not, doesn't make you a bad referee."

YOU

PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## "What-If Scenario" Exercise #1

Situation: Evening TV Programme Scrutinising Performance

- Match went well, but the media picked-up on a mistake (s) later that night.




PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## "What-If Scenario" Exercise #2

Situation: Personal Press Intrusion

- A reporter/journalist is waiting outside your home as you arrive back from a controversial refereeing performance...



PROFESSIONAL GAME MATCH OFFICIALS

Sheffield Hallam University Centre for Sport and Exercise Science

## "What-If Scenario" Exercise #3

Situation: Family Welfare Issues

- Close family members have been affected during the week by extensive media reports following a match at the weekend...





**“What-If Scenario” Exercise #4**

**Situation:** Pre-match Press Conference Outburst

- Managers/players discuss your age, lack of refereeing experience, and recent performances in a pre-match press conference two days prior to the match...

**“What-If Scenario” Exercise #5**

**Situation:** Family Welfare Issues

- A close family member is now starting to worry about the results/outcomes of matches on a Saturday afternoon...

**“What-If Scenario” Exercise #6**

**Situation:** Early-Season Media Scrutiny

- The start of the new season is going well, however, recent press reports are still discussing/highlighting your previous performances/decisions from late last season...



# Appendix M: Workshop Structure and Content for Study Three

## Workshop Six

**Mental Toughness Education and Training Programme (MTETP) for early career English Football League Referees**

**MTETP Workshop 6**  
Off-Field Situations demanding Mental Toughness:  
Peer- and Coach-Assessment of Performance

**List of Video Footage**

Clips 1, 2, and 3:  
James Adcock (Rochdale vs. Bradford City 02/10/12, Port Vale vs. Bradford City 05/03/13, Barnet vs. Morecambe 09/03/13).

Clips 4, 5, and 6:  
Tony Harrington (Walsall vs. Scunthorpe United 06/11/12, Preston North End vs. Notts County 20/11/12, Tranmere Rovers vs. Carlisle United 02/02/13)

Clip 7:  
Darren Bond (Millwall vs. Peterborough 19/02/13).

Clip 8:  
Steve Bratt (Hednesford Town vs. Stafford Rangers 29/01/13).

Clip 9:  
Jeremy Simpson (Crewe vs. Hartlepool United 06/10/12).

Clip 10:  
Gavin Ward (AFC Wimbledon vs. Morecambe 23/03/13).





## *Appendix N*

### *Example Transcript of Study Three Social Validation Questionnaire*

**Appendix N: Example Transcript of Study Three Social Validation Questionnaire**



***Mental Toughness Education and Training Programme (MTETP) for English Football League Referees***

*Open-Ended Social Validation Questionnaire – Referee B*

**Section A:** Thoughts on the aims, structure, and content of the MTETP and the workshops within?

Workshops really worked for me. This has given me a number of things to think about (trigger points i.e., use of handkerchief/halfway line, preparation, relaxation, parking/binning a decision, moving on, putting things into perspective etc.) and the honest discussions with yourself/Eddie allowed me to raise my issues/worries that have happened.

Role-play scenarios were a great idea and worked really well. Plenty of conflict to manage and difficult individuals to control. I personally benefitted from the idea of better identifying a 'troublesome' individual. In my game there was a player whose role was to commit several offences and I didn't spot this until it was brought to my attention afterwards. Whilst in a game on the Football League the officials can communicate via the headsets and this player may well have been correctly penalised (i.e., sent-off) through better teamwork. However, from a personal learning point it was the main thing that I took away from the exercise.

The idea of the role-play is suitable for referees at all levels, proving that the situations are not overly demanding for referees at lower levels of the game and reflect potentially realistic scenarios for the level at which they officiate. The referee in a role-play may benefit from the use of Assistant Referees in order that the team of officials may better identify offenders. This could make a potentially difficult situation more realistic to control, (e.g., it is difficult to monitor 2 or more pockets of players, which occurred towards the end of my game).

**Section B:** How the MTETP and the workshops have affected your on-field refereeing performance?

Think I have covered some of the points above. To highlight a couple of things that have helped me since being involved in the Programme – moving on from a decision (parking/picture a bin), focussing with the use of my handkerchief, seeing the bigger picture rather than one mistake. Definitely feel that I have moved on as a Referee since the start of the season – helped with my self-belief.

The workshops have highlighted the importance of covering all the bases before officiating, as if one stone is un-turned it is to someone's else's gain and is likely to bite you up the backside! By researching into clubs styles, you will be aware that club's make decisions for reason's i.e. formations, starting eleven, substitutions and style of football etc.

We as officials need to be aware of why teams make these decisions and the implications that may arise from it, thus having game plans in place so we can adapt our own game to move over the hurdle and onto the new challenges that we may face during the game.

By doing this; pre- match preparations on the day are vitally important, so you get the best out of the officials you are working with and deliver the best performance possible. This is through having routines that are more or less identical each week, as it will breed confidence and will relax the team while keeping them focused on the task ahead. At half-time/ full-time it also gives the opportunity to refocus, self-analyse and regroup as a team, this is importance as you can't dwell on decision's as the next decision is the most important and shows how mentally tough an official is!

After the game you can reflect on the positive and developmental areas of your game, acknowledging the area's which need the most attention and the positive area's which you need to maintain.

**Section C:** Thoughts about the potential development areas of the MTETP and the workshops within?

Strengths - Workshop discussions – different methods we can use. Honesty during the course – ability to talk about own strengths/weaknesses. Feedback on games (non-refereeing abilities) i.e. when watched by Liam.

Future Development - On-field role-play needs to replicate a real life situation (both game and interview).

On the whole this has helped me and I feel that I am a better Referee since the start of the season. A number of things to think about, not only during the game but post match. I am pleased that I was selected to undertake the programme as this has had a lot of benefit for me as a match official.

Whilst I understand that some areas of the project should possibly remain confidential, I personally feel that I would have no objections to any of my discussions be shared with other members of the group. The best way to develop the skills learnt and developed within the programme would be to share ideas with the other referees.

I also strongly feel that the referees can best benefit from watching any video clips of all the other referees within the group. If seven of the best ten clips for development purposes happen in game/s refereed by Referee A, it does not make any sense that the other referees cannot develop their own skill sets by watching the clips, even though they are not involved personally.

## *Appendix O*

### **Referee-Specific Mental Toughness Measure**

## Appendix O: Referee-Specific Mental Toughness Measure



**Sheffield  
Hallam  
University** | Centre for Sport  
and Exercise  
Science

### *Referee-Specific Measurement of Mental Toughness*

#### **Self-Rating of Mental Toughness**

**Referee:**

**Match:**

**Date of Match:**

**Date of Completion:**

**Signed:**



### Referee-specific Mental Toughness measure #1

#### **Self-Rating of Mental Toughness Attributes**

Each of the following items describes a Mental Toughness attribute that you may utilise in football refereeing.

Please rate how each Mental Toughness attribute applies to your current performance on the following scale:

	<u>Very Poor</u>									<u>Excellent</u>
<b>(A) Achievement Striving</b>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
➤ Being the best referee you can be										
➤ Striving for the next level of promotion										
➤ Setting high refereeing performance goals										
<b>(B) Coping with Pressure</b>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
➤ Maintaining a consistent level of high performance										
➤ Coping with match-day pressures										
➤ Dealing with media scrutiny										
<b>(C) High Work-Ethic</b>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
➤ Giving 100% effort in every game										
➤ Making every effort to enhance performance										
➤ Working hard to attain performance goals										
<b>(D) Resilience</b>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
➤ Overcoming performance setbacks										
➤ Not dwelling on decisions										
➤ Bouncing-back from a poor performance										
<b>(E) Robust Self-Belief</b>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
➤ Trust in decision-making										
➤ Strong belief in refereeing ability										
➤ Having courage of convictions										
<b>(F) Sport Intelligence</b>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
➤ Having a feeling for the game										
➤ Being a shrewd referee										
➤ Having an awareness of players' ability										
<b>(G) Tough Attitude</b>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
➤ Being fully-focused on performance										
➤ Make sacrifices										
➤ Make tough refereeing decisions										

Referee-specific Mental Toughness measure #2

**Self-Rating of Mental Toughness Behaviours**

Each of the following items describes a Mental Toughness behaviour that you may display as a football referee. Please rate how each Mental Toughness behaviour applies to your current performance during competition on the following scale:

	<u>Very poor</u>	<u>Excellent</u>
(A) <i>Clear commands and signals</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(B) <i>Strong body language</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(C) <i>Work hard [18 yard] box to box</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(D) <i>Make eye-contact with player (s)</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(F) <i>Act as a barrier between players</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(G) <i>Looking calm and composed</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(I) <i>Create on-field time for yourself</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	

Referee-specific Mental Toughness measure #3

**Self-Rating of Mental Toughness Cognitions**

Each of the following items describes a Mental Toughness cognition that you may deploy as a football referee. Please rate how each Mental Toughness cognition applies to your current performance during competition on the following scale:

	<u>Very poor</u>	<u>Excellent</u>
(A) <i>Draw upon refereeing experiences</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(B) <i>Draw upon life experiences</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(C) <i>Block-out crowd noise</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(D) <i>Focus in blocks of 5 minutes</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(E) <i>Awareness of own emotions</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(F) <i>Awareness of players' emotions</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(J) <i>Trust in decisions</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(K) <i>Park-up/bin a decision</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(K) <i>Focus on next decision</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
(K) <i>Tactical awareness</i>	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	

## ***Appendix P***

### **Example of Referee Performance Outcome Report**

The English Football Association match-day assessor referee report

## Appendix P: Example of Referee Performance Outcome Report

The English Football Association match-day assessor referee report

### Match Assessor Report Section 1: Match Summary

<b>Home team:</b>	<b>Away team:</b>
-------------------	-------------------

Date:	Kick-off:	Competition:
-------	-----------	--------------

Match statistics		
	Home team	Away team
Final score		
Half time score		
Yellow cards		
Red cards		
Penalty kicks		

Officials		Mark	Level of difficulty
Referee			
Assistant Referee 1			
Assistant Referee 2			
Fourth official			
Assessor			

<b>Description of the match</b>
---------------------------------

Evaluation scale:	
9.0 - 10.0	Excellent performance (outstanding)
8.5 - 8.9	Very good (a highly commendable performance)
8.3 - 8.4	Good (an efficient performance)
8.0 - 8.2	Good (an acceptable performance)
7.9	One clear and obvious error on a KMI, otherwise 8.3+
7.9	General performance – minor points for improvement
7.8	One clear and obvious error on a KMI, otherwise 8.0 - 8.2
7.8	General performance – deficiencies to address
7.5 - 7.7	Less than satisfactory (significant points to improve)
7.0 - 7.4	Two clear and obvious errors on KMIs
7.0 - 7.4	Disappointing (below expectations)
6.0 - 6.9	Three or more clear and obvious errors on KMIs
6.0 - 6.9	Poor performance (quite unsatisfactory)
5.0 - 5.9	Very poor performance (unacceptable)

Level of difficulty must be integrated into the mark and assessed separately for each match official	
Easy:	Easy match, no challenging situations for the official
Normal:	Normal match for the official; few challenging situations
Quite challenging:	Difficult match with some difficult decisions for the official
Very challenging:	Very difficult match with many difficult situations for the official

**BEFORE COMPLETING THIS REPORT I CONFIRM THAT I HAVE VIEWED THE DVD (IF NOT PLEASE STATE REASON)**

**Section 2: Referee**

**Section 2.1: Application of the Laws of the Game and disciplinary control**

Comments:
-----------

Minute	+ve /-ve	Description of the situation

**Section 2.2: Management of the game and players**

Comments:
-----------

Minute	+ve / -ve	Description of the situation

**Section 2.3: Personality**

Comments:
-----------

**Section 2.4: Teamwork**

Comments:
-----------

## Section 2: Referee (continued)

### Section 2.5: Fitness, positioning and movement

	+	Expected	-
Overall physical condition			
Always close to play but does not interfere with play			
Dynamic movement through midfield			
Sprints when required			
Efficient positioning at attacking free-kicks			
Efficient positioning at corner-kicks			

Minute	+ve / -ve	Description of the situation

### Section 2.6: Summary

--

### Section 2.7: Points discussed with the referee

Positive points:		
1	Section drop down list	
2		
3		

Points for development:		
1	Section drop down list	
2		
3		

Key Match error(s):	
Enter the original mark had the KMI (s) been judged correctly	

Key match incidents

			Decision involving				DVD analysis			
Minute	Cat	Description	Ref	AR1	AR2	4th	Correct	Incorrect	Credible	Inconclusive