

Institution: Loughborough University
Unit of Assessment: C26 Sport and Exercise Sciences, Leisure and Tourism
Title of case study: The integration and application of psychology in youth football: Research-related impacts on coaches, clubs and governing body policy
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>The Football Association (FA) now incorporates player-centred evaluations of international tournaments into its policy as a result of longitudinal research at Loughborough University aimed at raising the profile and application of psychological principles in youth football. In addition, FA coaching award courses and coach development courses have integrated a specific focus on core psychological factors (known as the 5C's), and these have been promoted by the FA to their 14,900 licensed coaches and 20,587 Twitter followers worldwide. These principles have also been adopted and embedded within English professional club academy programmes. Further to this, research conducted within coaching behaviour has resulted in the development and marketing of coach behaviour analysis software that has been sold to professional youth academies and is integral to coach development initiatives.</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>This impact has arisen directly from research conducted at Loughborough University by Dr. Chris Harwood and Dr. Chris Cushion between 2003 and 2013. This research formed key elements of the FA's Psychology for Football programme and has been supported by over £500,000 of research grant income to Loughborough University during this period. The programme comprised four main components. Firstly, research was initiated into identifying key factors influencing the performance by England National youth teams at international tournaments. In the first study, Dr. Chris Harwood (Reader in Applied Sport Psychology, 1998-current) and Dr. Matt Pain (Research Associate & former PhD student, 2003-2012) developed the Performance Environment Survey (PES), a 66 item evaluation tool allowing coaches to assess the impact of coaching, physical, mental and social factors on team performance [3.1]. This tool was used to investigate a wider sample of England Youth teams, illustrating how important team, coaching and social factors were to players' perceptions of performance [3.2].</p> <p>The second strand of research directly targeted the coach's role in the psychological development of the youth footballer. Harwood conducted an intervention study focused on enhancing youth coaches' levels of confidence in integrating mental skills and strategies into their natural coaching sessions [3.3]. His 5 C's programme over 15 weeks helped coaches to teach players about Commitment, Communication, Concentration, Control and Confidence within their coaching session time. Longitudinal results supported increases in coaches' confidence about integrating the 5C's, and coaches reported simultaneous improvements in their young players' demonstration of 5C psychological skills. This study was assisted by Nottingham Forest FC who gave full access to their coaching staff.</p> <p>A third strand of applied research by Harwood and his research team examined the phenomenon of psychological momentum in football in order to help coaches and players collaborate on the mental skills and strategies required to maintain or regain control of a game. In-depth interviews with six student-athlete football players examined the situations and strategies perceived to positively and negatively influence momentum within teams and individuals [3.4]. However, assisted by contacts in the professional game and practical experience, the information gained from this study was then supplemented by further interviews with a range of senior professional players, managers and coaches. As a result of this additional work, and in collaboration with Alistair Higham (a coach educator with the FA), and Dr. Andy Cale (Head of FA Player Development), a textbook for coaches and players was published in 2005 entitled 'Momentum in Soccer: Controlling the Game'. This book represented a partnership with FA Learning, the FA's coach development arm, and Coachwise, the publisher for Sportscoach UK.</p> <p>The fourth strand with Dr Chris Cushion (senior lecturer 2007- current) building on his previous published coach observation research in football has developed and validated the Coach Analysis</p>

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Intervention System (CAIS) [3.5]. The CAIS has been used in a series of season long observation studies in professional football to investigate the relationship between coach behaviour and practice type [3.6], with Partington (PhD Student, Loughborough University, 2011-current).

3. References to the research (indicative maximum of six references)

All of these research studies have been published within leading international peer reviewed journals in the fields of sport psychology and sport science with impact factors ranging from 1.2 to 2.7.

Theme 1:

3.1. Pain, M., and Harwood, C.G. (2008). The performance environment of the England youth soccer teams: A quantitative study. *Journal of Sport Sciences*, 26, 1157-1169. DOI: 10.1080/02640410802101835

3.2. Pain, M. A. and Harwood, C.G. (2007). The performance environment of the English youth soccer teams. *Journal of Sports Sciences*, 25, 1307-1324. DOI: 10.1080/02640410601059622

Theme 2:

3.3. Harwood, C.G. (2008). Developmental consulting in a professional soccer academy: The 5C's coaching efficacy program. *The Sport Psychologist*, 22, 109-133. Retrieved from <http://journals.humankinetics.com/AcuCustom/SiteName/Documents/DocumentItem/15624.pdf>

Theme 3:

3.4. Jones, M. and Harwood, C.G. (2008). Psychological momentum within competitive soccer: Player's perspectives. *Journal of Applied Sport Psychology*, 20, 57-72. DOI: 10.1080/10413200701784841

Theme 4:

3.5. Cushion, C.J., Harvey, S., Nelson, L., Muir, B. (2012). Developing the Coach Analysis and Intervention System (CAIS): Establishing validity and reliability of a computerised systematic observation instrument. *Journal of Sport Sciences*, 30, 201-216. DOI: 10.1080/02640414.2011.635310

3.6. Partington, M., and Cushion, C.J. (2011). An investigation of the practice activities and coaching behaviors of professional top-level youth soccer coaches. *Scandinavian Journal of Medicine and Science in Sport*, 23, 274-382. DOI: 10.1111/j.1600-0838.2011.01383.x

A series of research grants between 2002-2012 from the Football Association to Loughborough University have supported football-related research activity. £500k of this grant income represents the proportion allocated to staffing and PhD studentships in psychology and coaching behaviour research over this 10 year period. The full grant details are:

The Football Association: Psychology for Football research programme

Total Value: **£75,000 (2002-2005)**

The Football Association: Performance analysis, video production and psychology for football research.

Total Value: **£673,500 (2006-2008)**

The Football Association: Performance analysis, video production and psychology for football research

Total Value: **£1.7 million (2009-2011; extension 2012)**

4. Details of the impact (indicative maximum 750 words)

From 2008 onwards, the social, cultural and commercial impacts of these themes of research are evidenced by their influence on UK coaches, coach education practices, and through professional club and national governing body policies.

With respect to Theme 1: Directly from the original research work at Loughborough [3.1, 3.2], the Performance Environment Survey (PES) has reached into National Governing Body policy and

significantly influenced methods of international team performance assessment. Specifically, in order to review and inform tournament preparation, the PES is now used as part of FA Policy by FA Club England and the National Coaches as a tournament evaluation tool. Within point 120 in the FA's (2011) *Raising Our Game* policy document, the FA states "Whilst The FA always seeks to understand the reasons for disappointing results, and has collected feedback previously from coaching and playing squads, it should seek to go further in formally collating qualitative and quantitative feedback from all international squads to better understand the successes and failures of team environment and preparation from their perspective." This point is acknowledged within two of 25 recommendations summarized and reported by the FA from this policy [5.8]. Subsequently, this process of tournament evaluation by players and the role of the PES is supported by a testimonial from the FA National Coach for the England U-16's team [5.1].

With respect to Theme 2: From his original intervention research [3.3] conducted at a single youth academy, Harwood's 5C's programme and its principles and practices have significantly impacted upon the national approach of the FA towards its psychological education of coaches and clubs. Moreover knowledge of the 5C's is having an extensive reach into 1000's of coaches and parents through direct promotion via FA channels. Specifically, the 5C's now form the basis of the FA Level 4 Psychology for Football education module for coaches. Based on the delivery of mental skills on the pitch, this national course has already served over 450 coaches from amateur youth soccer, professional academies and centres of excellence. In further support of this level 4 module, the FA commissioned a coaches textbook based on the 5C's due to be published by Harwood in December 2013. In addition, the FA art and design team have worked with Loughborough University to create three 5C's educational wall posters for youth football clubs, coaches and parents. These wallposters have been distributed to 500 FA Charter Standard football clubs in conjunction with the creation of two FA webpages that have made these 5C educational tips and practices available for download by all registered coaches and visitors [5.7]. These 5C education resources have been directly sent to 14,900 licensed coaches, and have been promoted via Twitter to 20,587 worldwide followers at #StGeorgesPark. To date, the websites have been accessed by 2456 unique visitors with over 1600 having actively downloaded the 5C resources [see 5.8]. This initiative is supported by the testimonial from the FA Head of Player Development [5.2].

The 5C principles have also influenced the development of the new FA Advanced Youth Coaches Award, established in 2012, and directly form the content of a textbook and e-resource to support the award. This is affirmed in a testimonial from the FA Director of Youth Awards [5.3]. Finally, in terms of internal impact within a professional club's long term player development plan, the 5C's philosophy is integrated within coach, player and parent education policies at Nottingham Forest FC and Leicester City FC. This integration of the 5C's approach is documented in Nottingham Forest's Player Development Strategy as an element of sport science provision [see 5.6].

With respect to Theme 3: Harwood's research [3.4] on psychological momentum revealed both team and individual psychological strategies used by players and coaches to maintain and regain momentum during soccer games. Informed by this material, the resultant professional textbook 'Momentum in Soccer' has been the core text for the FA Level 5 Psychology for Football coach education module. The book's framework focuses on how momentum within a team is influenced by individual and team factors, forming the structure of the three day course. The book has sold over 2300 copies to date with the course having served over 150 coaches and support staff from FA Academies, Centres of Excellence, Clubs and Schools since 2008. This impact is confirmed within the testimony from 5.2.

With respect to Theme 4: Cushion's research with CAIS in football has led to the development of a coach behaviour analysis software for use with tablet devices [see 5.10]. To date 20 software licences have been sold. Axis Coaching Technology has been promoted to 1952 followers on Twitter and has 450 signed up via LinkedIn. The software is being used within professional football at Leicester City FC, Southampton FC, Plymouth Argyle and Wigan Athletic as part of continuing professional development for coaching staff, coach behaviour evaluation and informing the practice environments created by coaches. This integration of the CAIS is reinforced in testimony from Academy Managers at Leicester City FC [5.4] and Wigan Athletic FC [5.5]. CAIS is also being used within UK Sport's Inspire/Aspire coach development programme, coaches (including football

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coaches) are supported with mentors in this programme and the mentors are embedding CAIS within their support programme. The CAIS is referred to within the Sports Coach UK prospectus for the Performance Coach Development Programme [5.9]

In summary, one of the fundamental indicators of significance in terms of impact is the progression and translation of these pieces of research into the policies and practices of football's sport governing body; the FA. Sport governing bodies are the service providers and policy makers for coaches and clubs with respect to coach and player education and development. Through the FA (its courses, website, social media outlets and management of national teams) as well as direct applications at club level, the various outputs from this research programme have **reached** over 20,000 youth coaches (including international coaching members), from 1000's of clubs and teams at all levels of the game. This is **significant** in integrating sport psychology within the system of youth development in football, and specifically through the behaviour and applied practice of coaches with youth football settings.

5. Sources to corroborate the impact (indicative maximum of 10 references)

The following sources of corroboration can be made available at request.

5.1 to 5.5 are testimonial letters from a range of benefactors of the research, 5.6 to 5.10 are websites and resources directly emerging from, and supporting, the research impact.

- 5.1. FA National U-16's England Team coach
- 5.2. FA Head of Player Development
- 5.3. FA Director of Youth Awards
- 5.4. Academy Manager, Leicester City F.C.
- 5.5. Academy manager, Wigan Athletic F.C.
- 5.6. Nottingham Forest FC academy's strategy for integration of multiple sport science disciplines (referencing the 5C's approach) across the player development phases – see <http://www.nottinghamforest.co.uk/team/academy/about.aspx> Tab – download 'Academy Provision across the Age Groups' pdf
- 5.7. 5C's educational posters with FA Logo and acknowledgement of Loughborough University
- 5.8. FA websites hosting:
 1. Recommendations for evaluating and preparing performance environments (no. 24 & 25) from FA policy document 'Raising our Game: Young Player Development and the Success of Future England Teams (2011). The FA.
<http://nav.thefa.com/sitecore/content/TheFA/Home/TheFA/NewsAndFeatures/2011/YPDRec>
 2. The 5C educational resources for coaches and parents:
<http://www.thefa.com/News/st-georges-park/2013/may/a-psychological-focus.aspx> (open access)
<http://facc.thefa.com/coaching-articles/psychological-focus> (members only access)
- 5.9. ASPIRE 2014-2015 Performance Coach Development Programme prospectus and the application of the CAIS and coaching behaviour analysis on pages 5 and 6. SportsCoachUK.
- 5.10 CAIS system – Axis Coaching Technology: <http://www.axiscoachingtechnology.com/>.