

Impact case study (REF3b)

Institution: Glyndŵr University
Unit of Assessment: 4 – Psychology, Psychiatry and Neuroscience
Title of case study: A refereeing performance model for training talent [4/2]
1. Summary of the impact (indicative maximum 100 words) Recent research through the Applied Psychology Research Centre into sports officiating at Glyndŵr University has helped to create a national level referee performance model that is being used to identify and train emerging talent. The model is currently being used with the Rugby Football Union (RFU) English national panel of referee coaches.
2. Underpinning research (indicative maximum 500 words) Previous research into the psychological and performance demands of rugby union refereeing identified four cornerstones to the performance demands of refereeing as (i) knowledge and application of the law (ii) contextual and material judgment, (iii) personality and game management, and (iv) physical fitness factors. Until now, this was the performance model adopted by the RFU in England to develop elite refereeing expertise. Further research has been based on interviews conducted in 2011 with international rugby union referees (reference 3), and a study of training international netball (reference 4) and hockey teams (reference 2) that built on empirically tested decision making principles (references 1, 5) to look at models to develop decision making skills through reflection and intra/interpersonal analysis). Following analysis of the interviews with international rugby union referees regarding their decision making and decision communication, four key themes were identified: corporate theatre, self-analysis, decision approach/philosophy and within-game psychological skills. These have now been merged with the previous four cornerstones model to form a unified model (Fig.1).
Fig. 1
The original and unique aspects of this model are the areas of <u>Referee Theatre</u> , recognising the

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need to communicate effectively to a range of audiences (such as the players, coaches, the crowd, spectators and television commentators). In addition the research identified the importance of Analysis skills, by conducting pre-game simulations (visual imagery), template building (shared mental models) and decision reviewing (self-reflection) in order to develop expertise.

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

These are available on request if required and not in the public domain.

1. Mascarenhas, D. R. D., Button, C., O'Hare, D., & Dicks, M. (2009). Physical performance and decision making in association football referees: A naturalistic study. *The Open Sports Sciences Journal, Paper 2, 9pp*. DOI: 10.2174/1875399X00902010001
2. Richards, P., Mascarenhas, D. R. D., & Collins, D. (2009). Implementing reflective practice approaches with elite team athletes: Parameters of success. *Reflective Practice: International and Multidisciplinary Perspectives*, Vol.10, No.3, pp.353-363. DOI: 10.1080/14623940903034721
3. Cunningham, I., Mellick, M., Mascarenhas D.R.D., & Fleming, S. (2012). Decision making and decision communication in elite rugby union referees, *Sport & Exercise Psychology Review*, 18(2), 19-30.
4. Richards, P., Collins, D., & Mascarenhas D.R.D. (2012). Developing rapid high-pressure team decision making skills. The integration of slow deliberate reflective learning within the competitive performance environment: A case study of elite netball, *Journal of Reflective Practice*, Vol. 13, No.3, pp. 407-424. DOI: 10.1080/14623943.2012.670111
5. Mascarenhas, D. R. D., & Smith, N. C. (2012). Developing the performance brain: Decision making under pressure. In: D. Collins, H. Richards, & C. Button, *Performance Psychology – Developing a Peak Performance Culture*. Elsevier, pp. 245-267.

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

The research results were presented at the RFU National Conference in Warwick, May 2012. This paper allowed the RFU to not only have clear areas for referee development but also to gain a better appreciation of expert performance in each of the components. Feedback from this conference, attended by the RFU national panel referees/coaches and assessors, enabled further development of the model by the RFU's North West Referee Development Manager.

The model has subsequently been implemented with the cohort of 'National Panel' referee coaches (15 – 20 individuals, who each work with national panel referees over 1 or 2 seasons).

The initial findings from the implementation are that:

1. For coaches, the model provides verification of their work, in terms of content and delivery, and provides a basis for documenting their work.
2. For referees in training, the model increases their confidence through the model's reference to its foundation in research with 'elite' referees.
3. For the RFU, the model is serving as the basis for a curriculum for referee coaching. In particular, the model emphasises the importance of paying attention to 'off-the-field' issues associated with refereeing (e.g. psychological issues) as being just as significant for refereeing as 'in-the-game' issues.

In addition, the research into reflective practice and how to develop on-field skills in the classroom has been used to inform the RFU's approach as it currently works through the challenges of training mentors and coaches to elite level to ensure a consistent approach.

The model provides a basis for further developments in referee coaching. Researchers will be in

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consultation with RFU referees in January 2014 in order to further develop the implementation of the model and discuss on-going research into psychological skills for referees.

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

RFU North West Referee Development Manager