

## **THE ART OF SPORTS OFFICIATING: LEARNING HOW TO REFEREE RUGBY UNION**

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### **ABSTRACT**

This paper forms part of an ongoing doctoral research thesis. The purpose of this paper is to report an aspect of the initial interviews of the doctoral thesis. This paper investigates the learning opportunities (LOs) of rugby union referees. To date no refereeing studies have sought to document and evaluate the LOs of rugby union referees or look to gain insight into the experiences of referees in LOs. This paper seeks to address this gap in the research. This paper has three central aims: first, to catalogue the various LOs that are available to rugby union referees in Australia; second, to describe typical experiences of referees in these various LOs and third, to evaluate these LOs in terms of effectiveness. To achieve this, documentary research sourced from the Australian Rugby Union (ARU) and Australian Sports Commission (ASC), as well as semi-structured interviews with a small number of NSW Rugby Union Premiership referees, will be discussed.

**Keywords:** Education, learning, rugby union, sports officials, sports referees

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### **INTRODUCTION**

Learning to referee in formal education settings is associated with acquiring a specific amount of information and knowledge that experts have identified as being required for referees to be accredited (Davis, 1996). The preferred teaching method for delivering education and teaching courses to coaches and referees is Sfard's (1998) acquisition learning metaphor. This approach, whereby course presenters deliver information to participants who then apply this to their own settings is quite practical and suitable to the working environments experienced by coaches and referees (Davis, 1996). It has also been acknowledged that learning through experience is just as important as formal education programmes. For example, Wenger (1998), and Gilbert and Trudel (2001), to name a few, reinforce the importance of learning through experience and this paper will explore how it is most evident in sports officiating.

There is considerable literature investigating the way sports officials learn, although there are only a few papers that focus specifically on rugby union referees (Ollis, MacPherson, & Collins, 2006). In their 2006 study investigating talent development in rugby refereeing, Ollis et al. (2006) explored how rugby union referees acquired

expertise. Their study, conducted over an 18 month period, discussed four emergent themes (personal analysis, interpersonal analysis, group analysis and organizational analysis) which characterize how individual and environmental determinants impact on the complex understanding of expertise. The study concluded that there are a number of processes that affect a referee's ability to develop expertise, and that organizations need "to create a context from which elite performance can morph" (Ollis et al., 2006, p. 321).

Previous research into the area of Association Football (soccer) has discussed numerous ways in which referees learn and are tested both physically and mentally during games and in training, with many of the identified articles focusing on fitness and agility training regimes and techniques (Catteeuw et al., 2009; Helsen & Bultynck, 2004; Krusturp & Bangsbo, 2001; Krusturp et al., 2009; MacMahon et al., 2007; Mathers & Brodie, 2011; Mohr, Krusturp, & Bangsbo, 2003; Reilly & Gregson, 2006; Webb, 2014).

Krusturp & Bangsbo (2001) investigated the activity profile and physiological demands of elite soccer referees over 43 competitive matches in two Danish leagues. The study concluded that top-class referees have significant aerobic expenditure throughout the course of a game and referees' ability to perform at optimal levels is severely diminished towards the end of the match. The study suggests that referees' training needs to focus more on intermittent exercise to reduce the likelihood of deteriorating performance near the end of matches (Krusturp & Bangsbo, 2001). In a follow-up to this study, Mohr, Krusturp & Bangsbo (2003) completed the same testing on referees and on a group of medium-level professional soccer players. The results of this follow-up study mirrored the results of the Krusturp & Bangsbo (2001) study with players completing high-intensity running during a game, which resulted in fatigue towards the end of matches; these fatigue levels varied depending on the positions the players played in, with defenders and full backs exhibiting lower recovery times due to less running and physical exertion. Krusturp et al. (2009) followed up the previously mentioned research with another similar study investigating the total distance covered by international football referees and assistant referees. The study sought to analyse the difference between the referee and assistant referee, and concluded that match activities of the officials differ significantly, and training and testing procedures need to reflect the differences in the jobs and roles of the referee and assistant referees.

Helsen & Bultynck (2004) researched physical fitness in Association Football referees by investigating the Union of European Football Associations (UEFA) top-class referees and assistant referees during the final round of the Euro 2000 Championships. Their study identified referees heart rates and physical workloads, and how these impacted on the quality of decisions made during the matches. The study suggests that referees need to look at intermittent training sessions, placing priority on high-intensity aerobic stimuli, as well as working on video training as a way of improving communication and decision-making skills. A similar study investigating the heart rates of referees and assistant referees in order to identify the physical strains that are placed on officials bodies in an attempt to be better able to prepare them for the contest, concluded that on average referees travel 10 kilometres in a game and maintain an average heart rate of approximately 160–165 beats per minute, while assistant referees travel on average 7.5

kilometres in a game and have an average heart rate of 140 beats per minute (Reilly & Gregson, 2006). The study concludes that because of the high energy expenditure and the unorthodox patterns of movement that officials carry out during a game (walk, run, stop, sprint, stop and so on) specific training regimes are required to ensure officials can carry out their duties effectively. The study also identified the mental demands expected of officials in making judgement calls on the spot, which are vital in the game's progress. The authors highlight the importance of diet and nutrition, citing that just as nutrition is critical in fuelling the body for physical activity, it is equally important in fuelling the body for the mental side of officiating as well.

MacMahon et al. (2007) examined sport expertise as a function of a role. Their study investigated video-based decision-making tasks and training activities that could influence the development of skills of match officials. The results of the study indicated that referees progress naturally with their skill development through a variety of means; the most effective means is actual performance which argues against Erickson & Lehmann (1996).

The distinction between referee and assistant referee was investigated by Catteeuw et al. (2009). Their study focused on two key distinctive aspects of a game of football where contentious decisions are common (foul play and offside). The study firstly observed the role specificity before correlating statistical data with the observations (years of officiating, hours of practice per week and number of games officiated). The results of the study indicate that role specificity does exist in Association Football. The authors suggest that further study is required to develop role-specific training programmes for both referees and assistant referees. The mental skills and support offered to referees of soccer games was investigated by Mathers & Brodie (2011). They conducted a case study whereby they investigated the levels of stress associated with refereeing elite soccer matches and the impact of stress on officiating performance and how this can affect the subsequent confidence of match officials. Through the use of mental skills intervention carried out with the case study group, referees were able to improve their performance.

Football officiating excellence has been investigated by Slack et al. (2013), where they investigated the perceptions of English Premier League referees when determining the factors perceived to be important amongst officials to identify refereeing excellence. The study which investigated areas such as mental toughness, support networks, match preparation and personal characteristics, to name a few, concluded that while there are numerous elements and factors that go towards determining excellence, for the officials in this study it was apparent that mental toughness was signalled out by the participants as being extremely important in order to survive in this challenging environment.

Webb (2014) explores the evolution of the referee with particular reference to training, support and assessment through a historical overview of the development of soccer refereeing in Association Football. Webb concludes that referees were an afterthought in football administration, and as a result Association referees have been playing catch-up ever since. It can be clearly seen that there is considerable literature on football (soccer) referees and the way they train and develop their skills.

There is some additional, although limited, literature which looks at sports coaches, and the way they learn to coach, which can also provide additional insight into the learning processes in sport.

A study investigated 35 youth ice hockey coaches in 5 different associations throughout Ontario Canada (Wright, Trudel, & Culver, 2007). The coaches reported how they learn to coach, with results indicative of previous studies (Bloom et al., 1998; Clifford & Feezell, 1997). Sports coaches acquire knowledge and understanding through various processes including mentorship by other coaches, through their experience as athletes (Cushion, Armour & Jones, 2003), coaching experience and reflection, and from formal coach education (Cote, 2009; Cushion et al., 2003; Gilbert & Trudel, 2001).

Werthner & Trudel (2006) state there are three types of learning situations that sports coaches utilize in their learning of how to coach: mediated, unmediated and internal (p. 198). Mediated learning is a style that is led by an instructor or facilitator in a formal setting, such as a workshop, clinic or seminar. Unmediated learning is when the learner seeks out the information directly and then utilizes the knowledge on their own to develop their own understanding; “Unmediated learning situations should be considered an important way to learn because the meaningfulness of the material of learning is probably high” (Werthner & Trudel, 2006, p. 204); however, they acknowledge unmediated learning can only work if the coaches have the ability to motivate and learn by themselves. Internal learning is self-reflection whereby the learner reflects on previous experiences and performances, and reconsiders their existing knowledge to develop new approaches.

More recently, the importance of reflection in the coaching process and the value which new inexperienced coaches can learn from reflecting on their experiences has been studied (Peel et al., 2013). Peel et al. asked youth sports coaches to reflect on their coaching and concluded with an assessment of the potential benefits of such practice. Through an investigation of the current available literature on the topic of how sports referees learn, it has been identified that there are varying examples which identify how sports referees learn best; it has also been identified that there has been minimal study focused upon the rugby union referee.

### **Documentary research**

As this study is focused on examples from Australia, it is prudent that a brief description be provided on the rugby union refereeing accreditation process as carried out in Australia.

In the documentary research carried out for this paper, the formal learning opportunities (LOs) or mediated LOs that were identified for rugby union referees existed within the National Officiating Accreditation Scheme (NOAS) framework. This framework operates under the guidance of the Australian Sports Commission (ASC) who ensure that all sporting organizations throughout Australia adhere to the rules and regulations contained within the framework (Australian Sports Commission, 2006), which include appropriate assessment, content, number of hours required to complete a course and requirements for maintaining accreditation.

### **Formal refereeing education programmes**

The NOAS was established in January 1994 to assist national sporting organizations to develop a group of skilled officials (Australian Sports Commission, 2006). There is no formal structure of the levels in the NOAS; however, a general training programme is available for use. The NOAS programme includes an overview of the components that officials seeking accreditation need to cover. The NOAS principles include: the fundamentals of officiating and event management; sport-specific principles such as rules, interpretations, reporting and training routines for officials; and officiating practice which includes practical officiating and the application of officiating principles.

Within the sport of rugby union, there are numerous accreditation pathways that prospective referees need to follow: smart rugby accreditation, Level 1, Level 2 and Level 3 accreditations. Referees also need to ensure that they reaccredit when the time arises before their qualifications expire, which vary depending on whether the accreditation is smart rugby (needs to be renewed every two years) or accreditation Level 1 through 3 (needs to be renewed every three years) (Australian Rugby Union, 2012).

The table below summarizes the forms of refereeing accreditation that the Australian Rugby Union (ARU) conducts with referees throughout Australia.

### **Participants**

To commence this study, the President of the New South Wales (NSW) Rugby Union Referees Association was contacted to discuss the merits of the research and gain access to the referees' contact information. Referees were then informed of the proposed study at one of their monthly meetings with interested referees were given the contact information of the researcher. Ten referees contacted the researcher who then provided additional information of the proposed research, after which eight agreed to participate in the study. All referees within this study officiated in the NSW Suburban Rugby Union Premiership in divisions 1 or 2. Pseudonyms have been used in this document to protect the identity of the participants. The research has received ethical clearance from the University Human Research Ethics Committee.

The eight participants in this study were all volunteer suburban rugby union referees. Suburban rugby union is generally played in community competitions across the states and territories of Australia by amateur players above the age of 18 years. Certain schoolboy rugby union fixtures are also officiated by suburban rugby union referees.

This small sample had an average age of 37 years with an average of 12.9 years refereeing experience. They all had Level 2 accreditation and in the previous 3 months had officiated at an average of 12.9 games (Table 2).

Table 1. Australian Rugby Union Refereeing Accreditation Pathways

Accreditation	What's involved	Prerequisite	Expiry
Smart rugby	<p>4 elements are covered:</p> <ul style="list-style-type: none"> <li>• Playing smart (focuses on injury prevention)</li> <li>• Technical (focuses on safe rugby and best practice)</li> <li>• Injury management (focuses on serious injury protocols)</li> <li>• Concussion management (focuses on guidelines that referees need to follow)</li> </ul>	Nil	2 years
Level 1	<p>This programme provides the training necessary to become a referee.</p> <p>The course follows the logic of:</p> <ol style="list-style-type: none"> <li>Law</li> <li>Tactics</li> <li>Techniques</li> <li>Referee management</li> </ol> <p>Individuals who wish to take the next step towards obtaining accreditation as a Level 1 referee are required to complete an online exam as well as undertake a Competency Assessment "field test"</p>	Foundation course	3 years
Level 2	<p>The aim of this training programme is to provide participants with information and methodologies that will assist in taking their refereeing to the next level. The programme focuses on the application of the law, rather than the law itself, as well as practical aspects of refereeing that will provide improved management skills.</p> <p>The programme covers:</p> <ul style="list-style-type: none"> <li>• Effective refereeing – a broad overview of referees appraisal and coaching, goal setting, self-analysis and understanding your personality.</li> <li>• Game management issues – on-field communication and positioning, relationships with captains and coaches, managing foul play and game understanding</li> <li>• Advantage</li> <li>• Game elements – tackle, ruck, maul, lineout, scrum, general play and restarts</li> <li>• Game knowledge – current playing and coaching trends</li> </ul> <p>In addition, individuals must complete an Intermediate (Level 2) Touch Judge training programme.</p>	Level 1 + officiated 20 games; minimum 1 year experience and can referee games up to U/16s	3 years
Level 3	Course conducted by the Australian Sports Commission	By invitation only	3 years

Table 2. Breakdown of referees age, years of officiating, accreditation level and prior experience

Name	Age	Years refereeing	Accreditation	Matches refereed in the last 3 months	Coached Rugby	Played Rugby
Bob	33	9	Level 2	12	no	yes
Craig	29	7	Level 2	12	no	yes
Dave	36	11	Level 2	10	no	yes
Frank	42	17	Level 2	10	yes	yes
George	40	15	Level 2	10	yes	yes
Harry	44	19	Level 2	10	yes	yes
Jake	38	13	Level 2	11	yes	yes
Liam	37	12	Level 2	12	no	yes
	<b>M:37</b>	<b>M: 12.9</b>		<b>M: 12.85</b>		

### Data collection and analysis

Qualitative research traditions are committed to investigating cultural phenomena. Qualitative traditions focus upon specific elements of individuals, events, entities and situations, documents and works of culture or art and concentrates on what is particular to these (Denzin & Lincoln, 2011). Qualitative research is using words, statements and other non-numerical channels that generate the data from the viewpoint of the participant. Detailed and personalized responses where the participants create their own definitions of effectiveness are required, rather than research which focuses on predetermined definitions that request participants to rate their beliefs on a scale (Holton, Swanson, & Naquin, 2001).

A pilot study was conducted with two referees to establish the suitability of the interview questions. Semi-structured interviews allowed the referee participants to describe their thoughts, feelings and experiences with LOs throughout their rugby refereeing career. Mishler (1991) identifies that at the very core of interviewing is an interest in identifying the experience of the participants and the meaning behind those experiences; interviews allow us to decipher those experiences. Kvale (1996) adds that interviews are particularly useful in developing an understanding of people's worlds and the meanings constructed within those worlds.

The interviews were conducted over a 45 to 60 minute period and were performed prior to and after referee meetings and training sessions. All interviews were audio taped. The interview began with questions regarding how long the participants had refereed and their level of officiating certification. Questions were also asked of the participants to discuss any prior experiences they had as a coach and/or a player; some example questions utilized in the interview process include:

- **When did you begin refereeing rugby union?**
- **What aspects of rugby union brought you to referee it?**
- **What are the positive elements to refereeing that keep you coming back?**
- **What are your views about referee training and qualifications?**
- **What are your views about the qualifications for your level of accreditation?**

- **What are your thoughts about the use of technology to assist referees in training and development?**

These questions were utilized as a guide to facilitate initial discussions and keep the interviews on track. This data was entered into an Excel sheet which allowed comparisons to be made in light of the qualifications and length of officiating by sorting participants responses through the sort function in Excel (Table 2). The semi-structured interview involves the use of a number of predetermined questions and special topics (Berg, 2004). Questions are usually asked of each interviewee in a systematic and consistent order; however, the interviewer can use their own discretion during interviews to probe far beyond the answers that they receive from the standard questions.

The second part of the interviews focused on how the participant referees developed their officiating skills. This audio record was transcribed into a Microsoft Word document for analysis using the NVivo software (QSR International Pty Ltd, 2012). The transcripts were read by the researcher and coded at a descriptive level. Descriptive coding involved reading the transcripts of interviews and marking text segments with codes that allowed the retrieval of text segments (Basit, 2003). The codes developed by the researcher which through deductive coding (Leighton, 2006; Sullivan & Venter, 2010) were already in mind, based upon previous research identified above and the researcher's experience, were then regrouped into major themes called 'learning environments' which are outlined in Table 3.

The trustworthiness of this research was ascertained through rich thick descriptions, which provided enough detail to contextualize the study such that readers will be able to determine the extent to which their situations match the research context, and hence, whether findings can be transferred (Merriam, 2009).

**Table 3. The learning opportunities of semi-elite rugby union referees**

<b>Learning environment</b>	<b>Attributes/Characteristics</b>
1. Formal accreditation	<ul style="list-style-type: none"> <li>• Refereeing kids rugby U8s-U12s</li> <li>• Level 1 (Foundation) Accreditation</li> <li>• Level 2 (Senior Referee) Accreditation</li> <li>• Level 3 (By invitation only)</li> </ul>
2. Training sessions	<ul style="list-style-type: none"> <li>• Weekly in season training sessions</li> </ul>
3. Association meetings	<ul style="list-style-type: none"> <li>• Monthly association meetings</li> </ul>
4. Seminar	<ul style="list-style-type: none"> <li>• Beginning season annual seminar</li> </ul>
5. Reaccreditation	<ul style="list-style-type: none"> <li>• Bi-annual smart rugby reaccreditation</li> <li>• Tri-annual refereeing accreditation</li> </ul>
6. Formal mentoring	<ul style="list-style-type: none"> <li>• Referee coach assessment of refereeing performance</li> </ul>
7. Resources	<ul style="list-style-type: none"> <li>• Online ARU website with videos and printed resources</li> </ul>
8. Personal experience	<ul style="list-style-type: none"> <li>• On the field learning from different situations</li> <li>• Prior experience in rugby as a coach and/or player</li> </ul>
9. Watching other referees (Peer observation)	<ul style="list-style-type: none"> <li>• Live at a game</li> <li>• On TV</li> </ul>



## RESULTS

The following results are presented in terms of the most recorded responses from the referee participants. As mediated training opportunities have already been dealt with in the documentary research, analysis of the actual programmes will not be discussed; however, the referees' experiences with these programmes are examined.

### Refereeing accreditation courses

Results from this research indicate that for new referees with no previous experience in rugby union, the foundation course is an excellent introduction for them into the game of rugby union. Wright et al. (2007) support this finding as they have published similar results, highlighting seven preferred learning situations for the participants of their study. Piggott (2012) also had similar results with sports coaches arguing that open and discursive courses were far more preferred than prescriptive and rigid courses. One of the respondents perceived that:

I found the [foundation] course really enjoyable and informative. I had never played or coached rugby union but when Sam (my son) started to play I became really enthralled by it and wanted to get involved. I thought coaching may be a little full-on and require more commitment so I opted for refereeing and have loved it ever since. The course was flexible enough to fit into my schedule and it was really fascinating listening to the presenters discuss the practicalities behind the rules...the bonus being I now understand the rules of rugby! (Frank)

Whilst some referees indicated their liking of the Level 1 foundation course, some were less enthusiastic, voicing their frustration at the course due to repetition and that prior knowledge is not recognized when enrolling on the officiating course. These perspectives are outlined in the following quotes:

Having been a senior coach (Level 2 in coaching accreditation) for over ten years I found it bemusing that I had to start at the beginning again when I opted to become a referee...I mean, talk about a waste of time, the law section and coaching and officiating practices are exactly the same for the coaching course...Acknowledgement of previous learning and experience would be useful here. (Harry)

I was a player for five years, and then moved into coaching for a further two and they still made me sit through the entire course! It was so boring at times; but at the end of it I could understand why, rugby is such a technical game with its laws you can interpret them 100 different ways at times so it's important to have all of us (referees) on the same page. (George)

These responses reaffirm Piggott's (2012) findings that indicated courses, which were prescriptive and did not cater for previous knowledge of participants, tended to receive less favourable feedback at the end.

Participants indicated an overall satisfaction with the Level 2 programme as with the Level 1 programme. Referees commented on how impressed they were at the lengths the ARU would go to keep referees up-to-date with the latest trends and issues in the game of rugby, and how this impacts on the way the rules need to be interpreted and enforced.

It's great to see the referees looking at ways to enhance and sharpen their own skills in light of the development of the game of rugby. (Liam)

The course has been fabulous! I would go one step further and suggest that it be compulsory to attend a course like this every year, or once every two years to brush up on one's skills and knowledge. (Jake)

Some Level 1 referees were frustrated at the rules preventing them from starting the Level 2 course until they had met the prerequisites of one season and at least 20 adult matches. Bob and Dave represent these perspectives:

It is ridiculous to make referees wait, especially if they want to progress and move up the ranks! They (ARU) should be promoting the courses instead of tying you down with red tape and making you wait. (Dave)

Had they (ARU) recognized and credited my coaching courses against the refereeing Level 1 accreditation I could have already been a qualified Level 2 referee; instead I have to wait 12 months. (Bob)

### **Weekly training sessions**

Training sessions for referees serve as a vital component of their overall development and progression. Not only do the training sessions provide the referees with opportunities to enhance their physical and mental prowess before they engage in actual officiating duties, they also provide the coaches who select the referees for their various officiating appointments an opportunity to make judgements on whether or not a particular referee 'has what it takes' to successfully fulfil their jobs out on the field. These perspectives are evident in the following quotes:

Training sessions are great fun...most of the time; it is really the only time where we as a group get to have some fun together in a non-threatening environment. We can make mistakes without having to worry about the consequences. (Jake)

Training is generally quite good, although I prefer more of the practical game simulations as opposed to the fitness training and testing. (Craig)

The importance of training sessions for sports officials has been acknowledged previously in the results of numerous academics, some mentioned already in this paper. The responses above by Jake and Craig highlight the need for training sessions to ensure that referees are physically fit (Krustrup & Bangsbo, 2001; Krustrup et al., 2009; Mohr et al., 2003) and have the mental ability and capacity to make the correct decisions whilst out on the field (Catteeuw et al., 2009; Mathers & Brodie, 2011; Webb, 2014).

### **Association meetings**

Meetings provided referees with opportunities to address issues arising from games played throughout the season as well as issues surrounding officiating practices that administrators, coaches and players may have raised. One of the respondents outlined:

Our monthly meetings are an important gathering point for all referees to get together to discuss all aspects of rugby officiating. It serves as a chance to interact with other officials you may never get the opportunity to see. (Liam)

Meetings also served as a recognition point for referees who had attained milestones during the period following the last meeting as evident in the following quote from one respondent.

Quite often we celebrate something attached to one of the members officiating careers. Just last month we were celebrating Stu's retirement from professional refereeing; early last year we celebrated George's 500<sup>th</sup> first-grade game, it's these types of acknowledgements that make it all worth it. (Frank)

### **Annual seminar**

The NSW Rugby Union also offers an annual seminar at the beginning of the year in addition to the monthly seminar meetings that the referees attend throughout the season. Many referees attended the annual seminar at the beginning of the year which includes 'refresher' components to bring referees up-to-date after the long break between seasons. These annual seminars have an expert or professional (current or retired) referee who presents a section of the seminar. Results from the interviews showed that the referees seemed to enjoy these special guests. For example, some of the referees mentioned that being able to listen to a current international referee talk about their experiences of dealing with stress or abusive players was far more useful to them than anything that a formal course could teach: "Peter talked about how he had Sean in his ear all game one match and he said to him 'Sean one more time and your off'...these experiences speak louder than any sit down course" (Craig).

## Reaccreditation

Reaccreditation takes place every two or three years and depends on what part of the accreditation is for renewal (smart rugby or refereeing qualification). The referees within this research viewed reaccreditation as an important reminder and refresher. Referees commented on how the ARU's process of offering reaccreditation online instead of a face-to-face course was great in offering already accredited referees the flexibility in completing their reaccreditation when they want.

## Mentoring

Formal mentoring programmes were available to all new referees according to the participants in the current study. Mentoring was also available to established referees if they or the referee coaches believed it to be in their best interest.

Referee coaches who act as mentors were also dispatched to various ovals on a weekend to provide the referees with advice on their performance and technique. Due to a shortage of referee coaches, not all ovals and games could be covered during a weekend. Throughout a season, referees not considered to be at the very top of the rankings could expect to see a referee coach on two or three occasions. Most referees viewed the infrequency as a downside to the mentoring programme: "It is often weeks and sometimes months between visits, by the time they get around to see you again they have forgotten what was said". (Harry)

Benefits were identified by all of the participants in this study of having referee coaches and mentors. However, some of the respondents expressed their concerns regarding the over-reliance on an individual appraisal process: "It can be quite difficult deciding whether or not to take the coaches' appraisal on board especially if it is something totally different to what I have heard before" (George); "At the end of the day it is only one person's opinion, ultimately the final decision lies with me" (Dave). Participants indicated that the mentoring process was very much dependent on the mentor or coach one received as some were definitely better than others according to the participants.

Reilly & Gregson (2006) highlight the important relationship that the referee and assistant referee have with each other whilst they are on the field, discussing the ways they learn off each other and support each other as a way of growth and fostering their overall knowledge and training as sports officials. Whilst no direct mentor like the ones Dave, George and Harry discuss are mentioned by Reilly & Gregson (2001), comparison can be made with the heightened relationship and mentor-like activities the authors discuss that exists between the referee and the assistant referee. Slack et al. (2013) also highlight the importance of this, referring to the pre-match preparation and support networks and services that are available to referees as being critical in their overall growth and development.

## Resources

The referee participants of this study had acquired numerous resources throughout the course of their officiating careers. As all of the participants had completed both the Level 1 and Level 2 courses, they had obtained a number of electronic and printable resources; from rule books and manuals to interactive DVDs. A number of the

participants commented that when they were beginning as referees, the interactive DVDs were a great way for them to learn. As Bob explains:

The DVD is great, you watch a small section of a game where an incident occurs such as an infringement and there is a pause in the DVD where you have to say what your decision would be. Then it continues and shows you the decision the referee made and a comment on why the decision was correct or a comment on why the referee got it wrong with an explanation of what the decision should have been. (Bob)

While the DVD was useful for beginning referees, the printed material was just as important. The portability of the rule book along with competition notes was a crucial piece of equipment to be placed in one's kit bag each weekend. The following quote portrays this perspective:

Having a copy of the rules and competition notes with you at all games is crucial, especially at those grounds where there is no formal ground manager, it is in these situations where having the rules in front of you to refer to and refer others to is paramount. (Jake)

### **Personal experience**

The application of individual background information and experiences emerged as a useful tool in assisting one's learning as a referee. Recalling training and experiences gained whilst being a player or a coach were identified by the participants as something which they called upon during their officiating careers. Having coached and played rugby union prior to becoming a referee was mentioned by all of the participants in this study which suggests that, a large portion of referees bring prior knowledge and understanding of the game of rugby union to their officiating duties. For the participants, having coached or played the game of rugby assisted their officiating abilities by allowing them to read and understand the game far better than those with no prior experience: "Having that background of being a player really allowed me to move around the ruck and maul phases of the game far easier, I think, than someone without the background" (Craig).

While previous experience as a coach or player increased a referee's confidence about their abilities, a number of the participants commented how they believed their day-to-day work environment also improved and assisted their abilities once on the rugby field. One respondent shared the perspective that:

Being a teacher you have to deal with a lot of disciplinary issues and I think, as rugby too has its moments where you need to be firm and harsh around disciplining players my background as a teacher really does help. (Liam)

Experience plays a large part in the overall success of referees; Ollis et al. (2006) mention the deliberate experience and practice of the referees in their study and how feedback and reports from coaches assisted in their growth and development. MacMahon et al. (2007) highlight how the training that referees undertake in today's professional sporting world is designed to mirror actual in-game scenarios so that match officials are adept at dealing with them and it becomes second nature. This practical experience reaffirms Craig's comments above about how he believed that having a background in playing rugby union assisted him greatly with the transition to referee because he was accustomed to the rules, procedures and general aspects of play.

### **Watching other referees**

The ability to watch other referees officiating either directly at a ground or on television was discussed by the participants of this research as being a valuable coaching and education tool. The participants judged that the watching of a game is a better source of education as well as being a good social networking opportunity with fellow match officials: "Being at a ground and watching another referee from the stands is a great way of learning and interacting with more senior refs". (Harry)

Participants in the current study usually refereed one match on a weekend and were then required to stay around for the following match as a standby referee. During this time, the participants indicated that they would either watch the following game from the stands or in some cases offer to assist the referee as touch judge (assistant referee): "I often use the standby role as a chance to do my cool down by running the line (acting as an assistant referee), it also means I get a good place to watch the game from". (George)

There are also practical benefits of watching your fellow referees officiate. The games which follow your own appointments are higher ranked referees who you hope to one day get in front of on the appointment rankings and the only way to do that is to see why they are so good. (Liam)

As mentioned by the above participant, watching peers officiate and how they interact and deal with the pressures and stresses of on-field rugby is a great insight for one's own personal development as a rugby referee; this is further supported and confirmed by Catteeuw et al. (2009) and Slack et al. (2013) who report on the usefulness of watching and learning from others. Catteeuw et al. (2009) highlights the usefulness of this approach in terms of teaching officials to make tough 50/50 calls, while Slack et al. (2013) reports on the importance of support networks and services as a way for referees to learn and improve themselves.

This study has shown that rugby union referees learn to officiate through a variety of mediums (Table 3). Three of the nine ways referees learn to officiate, as identified by the participants, involved mediated learning whereby the learning has been directly assisted by another person such as a coach or mentor (see Werthner & Trudel, 2006). The use of resources such as DVDs and coaching manuals, personal experiences and watching other referees officiate can be described as unmediated learning as the referee in this situation is deciding what he or she wants to learn about. Unlike the

mediated learning situations whereby there is a facilitator motivating the referees or participants to engage in the material, in unmediated situations there is no such facilitator and participants must take their own initiative to engage in the material. In terms of the current participants we must also remember that we are dealing with adults and not children, as such the learning styles of the participants must be acknowledged and understood as to how adults best learn and understand (Sfard, 1998). Examining the reported contexts of the referee participants (Table 3), we can begin to see how these learning contexts embody some of the core principles of adult education, self-concept, prior experience, readiness to learn and motivation to learn (Gilbert & Trudel, 2001; Holton et al., 2001). These are important principles in the successful teaching and education of adult learners, as well as rugby referees as depicted by this study. The experiences portrayed by the participants of this study suggest varying opinions of the different styles and methods used to teach adult learning.

## CONCLUSION

The current study has sought to identify the different situations and ways with which rugby union referees learn to officiate. The identified situations, as characterized by mediated and unmediated learning styles, represented a 'snapshot' of only one particular sport and does not constitute a definitive answer of how sports officials learn best. The research does not set out to promote one learning style over another; however, it has shown that the referees within this particular research utilize multiple learning situations and environments to facilitate their overall development and understanding of rugby union officiating. It may be concluded that referee education should include a combination of learning situations and also take into account the previous learning experiences and prior knowledge that participants bring to courses. Future research may concentrate on investigating other sports referees' experiences to see if similar situations arise, as well as investigating the experiences of elite professional referees officiating at test and international matches to see what their experiences of the Level 3 accreditation programmes are.

## FIRST AUTHOR BIOGRAPHY

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