Factors influencing player engagement with Performance Analysis in a New Zealand national league football club.

Stuart Graeme Moffatt

A thesis submitted in partial fulfilment of the degree of Master of Applied Science
at Otago Polytechnic, Dunedin, New Zealand

[12th November 2019]

Acknowledgements

I would like to thank Dr Codi Ramsey for your kind encouragement and your help developing my organisational skills. You have helped me immeasurably!

I would like to thank Dr Simon Middlemas for giving me the impression this was doable and never letting that façade slip at the beginning of the study.

I would like to thank Football South for their Otago Polytechnic Performance Scholarship and the opportunity to work with the teams, the coaches and the players.

I would like to thank my partner, Kirsti Moffatt, for sticking with me through thick and thin. Providing me with love and support.
Thanks to my children, Oliver, Devon and Louie for putting up with the impact studying has had on family life.

Abstract

Player engagement is an important pedagogical factor for measuring qualitative athlete learning. However, literature is scarce on player engagement with Performance Analysis (PA) in football. The term *player engagement* is used within and between PA research as though there is common understanding of the definition. Researchers within PA in football have highlighted the tendency within the canon towards stand-alone definitions and non-discipline wide isolated variables which make cross comparison between studies difficult. In this context a definition of player engagement is pertinent. Since coaches and players can be understood to share a similar pedagogical relationship to teachers and students, it is recognised that an understanding of learner engagement can be sought from the corresponding education literature. In the education canon there are considerable numbers of research papers attempting to define student engagement. While an exact definition remains complex, there is agreement that student engagement can be considered the quality of the effort students afford to their learning. In applied practice there is value in comparing the perceptions of teachers and students as to what engages learners. This holistic approach recognises the importance of engaged pedagogues to the quality of learning. This thesis comprises three studies; one using autoethnographic data from a reflective diary of an assistant coach/analyst, the other two use data from the verbatim transcripts from players' and head coaches' focus groups. Qualitative content analysis identified factors influencing player engagement from the perspectives of the participants within the three studies. The results showed that from the perspective of the assistant coach/analyst, player engagement is influenced by the PA delivery style. The qualitative content analysis of the player's responses indicates that players' expectations and preferences are a major contributing factor to player engagement. From the head coaches' perspectives, the main factor influencing player engagement is the ability to impart a concise message.

Table of Contents

List of figures

Chapter 1. Introduction

Performance Analysis (PA) has emerged as an amalgamated sports discipline from several roots in notational analysis, biomechanics, physiology and psychology (Drust, 2010; Hughes & Bartlett, 2015a; Hughes & Franks, 2015a; O'Donoghue, 2015). From these roots the discipline provides a unified blend of quantitative and qualitative performance data (Hughes & Bartlett, 2015a). PA enables a comparative analysis of individual and/or team performance, from which the addition of an expert contextual understanding allows for deliberate focused interventions to increase performance outcomes (Drust, 2010; Hughes & Franks, 2015b; O'Donoghue, 2015)

> …it can include evaluating the technical, tactical and behavioural activities of individuals, teams, and/or specific units within teams. It can also incorporate the determination of single or multiple movement patterns completed in relation to the demands of the training and/or competitive performance (Drust, 2010, p921).

The definition of PA is one that places the discipline squarely within the practice of coaching (Booroff et al, 2016; Brown & Potrac, 2009; Carling et al, 2013; Groom & Cushion, 2005; Groom et al, 2011; MacKenzie & Cushion, 2013; O'Donoghue, 2015). PA allows coaches to review the tactical facets of players' decision making, assess athletes' technical ability and evaluate the impact of socio-cultural and environmental variables on performance (Booroff et al, 2016; Carling et al, 2013; Middlemas, Croft, & Watson, 2018; Groom & Cushion, 2005; MacKenzie & Cushion, 2013; McKenna et al, 2018).

PA can occur during athletic performance (Wright et al;, 2012), or as part of the post-performance debrief (Hughes & Bartlett, 2015a; O'Donoghue, 2015). PA is also widely used, within the coaching cycle, to scout opponents and provide feed-forward information (Groom & Cushion, 2005; Wright et al, 2016). Video clips modelling successful behaviour are used

as pre-match motivational montages to prepare athletes both emotionally and psychologically for performance (Groom & Cushion, 2005; Middlemas & Harwood, 2018; Wright et al, 2013).

PA identifies and classifies performance variables, on one hand, and evaluates performance against them, on the other (Hughes & Bartlett, 2015b; MacKenzie & Cushion, 2013). Performance trends emerge through PA data, allowing individuals or teams to compare themselves across seasons, locations, leagues and competitions (Hughes , 2015b; MacKenzie & Cushion, 2013; McKenna et al, 2018; Tenga, Holme, Ronglan, & Bahr, 2010). Coaches, analysts and researchers create data sets from each athletic performance by recording and then coding all the actions in a game into data units known as variables (Hughes, 2015a). Trends are discerned from these variables over time and patterns of behaviour associated with positive performance outcomes are identified (Hughes & Bartlett, 2015a; O'Donoghue, 2015). Labelled 'performance indicators' (Hughes & Bartlett, 2015c, p90), these outcomes are then considered indicative of successful sporting performance.

Coaching Staff hierarchy

The current hierarchy commonly reported in football clubs, in New Zealand, follows a style originally from Europe, with a head coach at the top of a hierarchical pyramid (Cassidy & Kidman, 2010) (Figure 1). Assistant coaches and medical staff are generally on the next rung down (Cushion & Jones, 2006). Several rungs below them, the performance analyst might be of equivalent status to the strength and conditioning (S&C) coach, particularly if both roles are internships (Wright et al, 2013).

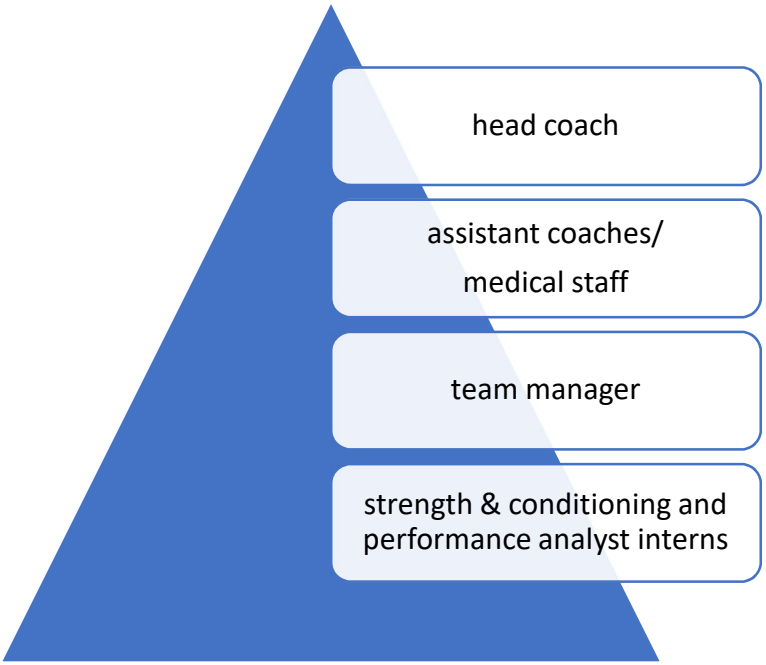


Figure 1: Coaching staff hierarchy in a New Zealand national league football club

Despite this hierarchical system there is an emergence of the recognition for increased player engagement with both coaching and PA delivery (Wright et al, 2016). Within the education literature, there is relevant and contemporary research on student engagement with learning. While the relationship between coach and athlete and teacher and student are not exactly the same, the nature of the two dialectics bares worthy comparison. Brief analysis of the education canon shows that hierachical power relationships, institutional structure, linear pedagogy (teaching based not learner based) and limited ability for learners to ask questions all produce disengagement amongst high school to tertiary age students (Hu & Kuh, 2002; Zepke, Leach, & Butler, 2014; Beasley, Gist, & Imbeau, 2014; Ely, Ainley, & Pearce, 2013; Alvarez-Bell, Wirtz, & Bian, 2017). This raises important pedagogical questions about how to best to deliver PA within the hierarchy of a football club if increased player engagement *is* a desired outcome.

The role of PA within football has changed considerably in the last fifty years (Hughes, 2015a). The role of the Performance Analyst (analyst) in the sport has gone from being a Svengali-like, strategic power behind the throne, to a more often, low-paid (or unpaid) intern

with low status and social capital (Blackett, Evans, & Piggot, 2018; Butterworth & Turner, 2014; Pollard, 2002). This shift in status correlates to attempts within sport to use PA for the creation of predictive variables.

When first utilised in the 1950's, PA is perceived to be so successful in converting predictive variables into performance outcomes, that it changes the nature of the game for the next three decades (Larsen, 2001; O'Donoghue, 2015; Pollard, 2002).This success is tied to one strategy and is not replicated in the following decades (Carling , Wright, Nelson, & Bradley, 2013; Hughes & Franks, 2005; Larsen, 2001; MacKenzie & Cushion, 2013; O'Donoghue, 2015; Pollard, 2002). The inability to repeat this initial success and the style and philosophy of the associated strategy, results in PA being considered by some researchers to have developed a theory-practice gap (MacKenzie & Cushion, 2013).

PA discourses

The theory-practice gap critique of PA in football is advanced further by researchers who consider that PA in football is now two separate discourses (Carling et al, 2013). The first discourse can be considered an academic discipline, concerned with the scientific investigation of performance and the second discourse considers PA an applied tool for coaches to implement within their coaching cycle (Carling et al, 2013). This existential questioning results in researchers accusing PA in football of a lack of clarity around its conceptual base (Carling et al, 2013).

In their commentary on Mackenzie and Cushion's (2013) critical review of PA in football, Carling et al (2013) describe the linear progression of the expansion of the definitions of PA. Citing Hughes and Bartlett (2008) definition of PA as an 'overarching sytem of notaional analysis and biomechanics', to O'Donaghue's (2010) consideration that PA is all research into 'actual sports performance in competition or training' (Carling et al, 2013, p6). Further to this, calls for scholars to include sociological and pedogogical

theorising (MacKenzie & Cushion, 2013) results in the discipline simultaenoulsy having an extremley narrow and/or extremley broad definiton according to the epistemology of the individual reader. MacKenzie and Cushion (2013) are taken to task for this by Carling et al (2013) who accuse Mackenzie and Cushion's (2013) of falling foul of their own theory practice gap through taking a realist and etic methological stance in critiquing the absence of a universal set of performance variables but then switch to a relativistic and emic paradigm in their recommendations for a solution, which is for further research into socio-cultural influences on PA delivery and the impact of pedagogy on athlete learning (Carling et al, 2013). In defence of Mackenzie and Cushion (2013), this is recognised in their paper as a recurring methodological error across the entire canon which attempts to answer applied science questions with basic science answers (MacKenzie & Cushion, 2013). Regardless of whether its a theory practice gap (MacKenzie & Cushion, 2013) or two separate discourses (Carling et al, 2013) a lack of agreement on the exact definition of PA in football has plagued the discipline through the 2010's.

The emergence of nonlinear pedagogy from ecological psychology and nonlinear dynamics allows for a closing of the PA theory-practice gap and union of academic and applied dicourses. Based on the ecological dynamics framework, nonlinear pedagogy identifies that the athlete themselves is a dynamic ecological entity (Chow et al ,2016). The complex highly individualised ecology that is the athlete competes in a further highly complex adaptible environment, with and against other complex dynamic individuals (Chow et al, 2016). Nonlinear coaching and hence PA, is focused not on the transmission of expert to learner information, but on the creation and facilitation of constraints in training that represent the environment to create variable movement patterns that emerge from within the dynamic ecology of the athlete themselves (Chow et al, 2016). The adoption of nonlinear

pedagogy PA techniques by elite international teams is an indication that this is increasingly worthy of further qualitative research (Danks, 2019).

This movement away from coach-centred to player-centred pedagogy is addressed in the literature where PA in football is critiqued as being too overtly functionalist and post-positivist in nature (Carling et al, 2013). This is not only a critique of PA but of the wider coaching paradigm within which it sits (Cassidy et al, 2009; Carling et al, 2013; Jones et al, 2004; MacKenzie & Cushion, 2013). The wider coaching literature critiques post-positivist investigations into coaching as lacking an authentic reality of practice (Jones, 2009). Authors in the coaching canon identify that the essential element of coaching is that it deals with people (Brown & Potrac, 2009; Cassidy & Kidman, 2010; Cassidy et al, 2009; Cushion et al , 2006; Jones, 2009; Jones et al, 2004). The human contexts that the athletes bring with them into the sport, into the game and into their performances are often ignored in the dominant reductionist coaching paradigm, which seeks to break down performance into easily replicated chunks of behaviour (Carling et al, 2013). Within this critique, a shift of emphasis *away* from coaches towards the players is required (Chow, 2016). Seeking to understand what engages players with PA, as opposed to player perceptions of PA or player buy-in with PA, allows researchers to understand the wider contextual interpretations of the human interaction that underpins PA in football (Carling et al, 2013; MacKenzie & Cushion, 2013). A study into player engagement is an attempt to understand the quality of effort afforded to learning (Kuh, 2000).

Overview of thesis chapters

This thesis is presented in seven chapters (Figure 2). Two papers formatted for submission to the International Journal of Performance Analysis in Sport is included in the appendices (Appendix A and B). Following this introductory chapter, Chapter two covers the literature on PA in football and the closely related, football coaching canon. The literature review

identifies that there is a gap in the literature for qualitative research identifying the factors influencing player engagement with PA in general, not only in football. This gap has far reaching implications for the discipline allowing broader generalisations to be drawn from the thesis findings.

Chapters three, four and five are three studies on player engagement with PA from the perspective of an assistant coach/analyst, the players and the head coaches, respectively. The studies use qualitative content analysis from the general inductive approach to identify and code the themes, categories, factors and sub factors of influences on player engagement with PA (Cho & Lee, 2014; Thomas, 2006).

Chapter six discusses the results and what the perspectives on player engagement from the three studies imply for the sport. Themes from the whole study are drawn and social capital, pedagogy and efficacy are discussed as over-arching factors that can be seen to link the three studies.

Chapter seven examines the strengths and limitations of the research and presents a conclusion to the thesis. Recommendations for further qualitative research are made to enable better pedagogic understanding and enhance learning environments for players.

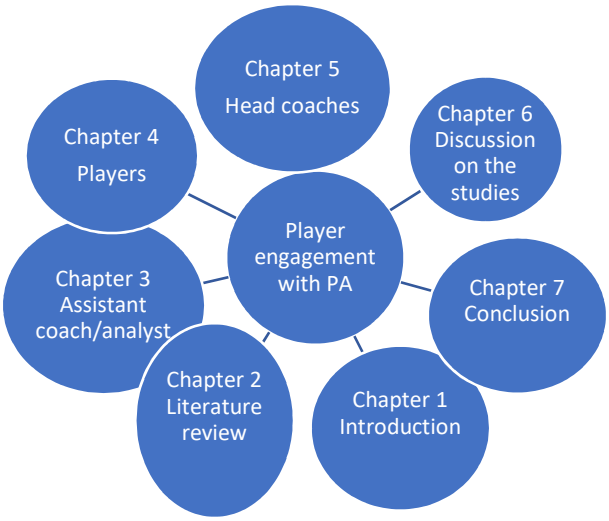


Figure 2: Overview of thesis as three studies

Chapter 2. Literature Review

PA in football

Long ball

On Saturday18th March 1950, Charles Reep, armed with a pencil and notebook, starts a frequency count of all the passes in possession sequences while watching Swindon Town during the match against Bristol Rovers (Pollard, 2002). History records that he starts this from the 50th minute, five minutes into the second half. This not only provides some wry contextual information about Swindon's first half performance but also marks the historical start of PA in football (Hughes, 2015; Hughes & Franks, 2005; Larsen, 2001; MacKenzie & Cushion, 2013; McGarry, 2015; Pollard, 2002). Reep later presents findings from a study with Sir Bernard Benjamin, to the Royal Statistical Society in 1968. The study records the results of every passing possession sequence in 578 football matches. The results indicate that 'chance' (Pollard, 2002, p853) is a contributing factor to performance outcomes to a higher degree than previously understood. Commonly misunderstood as sheer luck, chance, is explained '…as the probability, or percentage likelihood of a future occurrence' (McGarry, 2015, p224).

Reep identifies a high frequency, or probability, of goals scored resulting from sequences of three or less passes and advocates for a quick and direct route to goal as a basis for match strategy (Hughes & Franks, 2005; Larsen, 2001; Pollard, 2002; McGarry, 2015). This strategy has several names with 'long ball', 'route one' and 'direct play' among them (Pollard, 2002; Tenga et al, 2010). For the purposes of this thesis, it shall be referred to herein as 'long ball'.

The long ball strategy is undoubtably responsible for the sudden and meteoric rise of teams from the lower leagues of England, in the late 1980's such as Watford and Wimbledon

(Hughes & Franks, 2005; Larsen, 2001; Pollard, 2002). On the world stage, it is responsible for the emergence of the Republic of Ireland and Norway as Fédération Internationale de Football Association (FIFA) World Cup qualifying teams (Hughes & Franks, 2005; Tenga et al, 2010). In England the Football Association (FA) coaching curriculum is changed so that coaches can only learn to coach long ball (Larsen, 2001; Pollard, 2002). Reep calls himself a Performance Analyst and what he does he terms 'Performance Analysis' (Larsen, 2001). Performance Analysis in football changes the sport, or at least sends one region of the sport on a strategic direction for several decades (Hughes & Franks, 2005; O'Donoghue, 2015).

Long ball begins to fade away around the early to mid-2000's (Hughes & Franks, 2005; McGarry, 2015; O'Donoghue, 2015). Teams may progress into the higher domestic divisions or qualified for World Cup finals by implementing the long ball strategy, but they do not tend to *win* the elite competitions (Hughes & Franks, 2005). These elite titles are still won by teams whose philosophy and strategy are to maintain possession until such time as the opposition's defence becomes imbalanced (Tenga et al, 2010). Johan Cruyff's successful integration of 'Dutch total football' into FC Barcelona's football philosophy results in tika-taka – long periods of possession – becoming the dominant strategy in European football during the 90's and early 2000's. While this style provides teams with success it also entertains crowds with players having opportunities to show-case footwork and skill (Torres, 2012). In 2005, Hughes and Franks investigate Reep and Benjamin's original work. Hughes and Franks apply 'normalising' to the original work which reveals alternate perspectives on Reep's findings. Most goals do come from passing sequences with three or less passes. However, due to the high frequency of turnovers in football, teams have lower possession counts before possession is turned over to the opposing team. This leads inherently to a high frequency count of three or less passing sequences, especially among less skilful teams. Hughes and Franks (2005) explore the *likelihood* of a passing sequence resulting in a goal.

Under these criteria they find that higher possession frequency counts had higher percentage outcomes for goals (Hughes & Franks, 2005; McGarry, 2015). This does not provide conclusive evidence for some researchers to justify abandoning long ball. Long passing sequences may be more effective at producing goals but they are rarer in the game, and while 80% of shots on goal still derive from three passes or fewer, there may be no mathematical justification for a real fundamental theoretical shift away from Reep and Benjamin's findings (O'Donoghue, 2015). This is especially pertinent if the team in question is not elite, in which case long-ball might be an appropriate strategy to over-come lack of skill (McGarry, 2015).

Interpretivism – aesthetics and ethics

Long ball football is associated with the (post) positivist and reductionist paradigm within PA in football (Hughes & Franks, 2005; Torres, 2012). This aligns with a pragmatic, determinist coaching philosophy (MacKenzie & Cushion, 2013). Determinism can be considered as the belief that events are determined by previously existing causes (Bandura, 1997). This football philosophy has an emphasis on achieving results through the linear reproduction of actions previously associated with a high probability of scoring (Larsen, 2001; MacKenzie & Cushion, 2013; McGarry, 2015; Pollard, 2002). In Brazil, this philosophy is labelled 'futebol de resultados' or the football of *results* (Torres, 2012, p304).

Philosophical proponents of the possession-based strategy are often aligned with the philosophical paradigm of interpretivism (Torres, 2012). This philosophy aligns with the Brazilian concept of 'futebol arte' or football as an art (Torres, 2012, p304). Brazilian super-star, Pele is an example of futebol arte for all the same reasons Lionel Messi can be considered a modern day example. Both demonstrate incredible ball control skills, combined with the ability to anticipate actions on the pitch before opponents. This results in the superstars' on-pitch actions being incredibly hard to anticipate. For fans (and opponents) this appears as if their performances are created artistically (nonlinearly) in their minds'-eye

rather than from the mechanistic linear recreation of practiced behaviour (Torres, 2012). The rival football truisms (determinism vs interpretism) can be witnessed on the sports pages of newspapers or on football websites. Here, rival coaches either declare coaching and match strategy (and by implication football) to be a science or oppose that position and claim coaching is instead an art (Potrac, Brewer, Jones, Armour, & Hoff, 2000).

From the interpretivist perspective, sport is not just the rules and conventions of the game but a whole set of other associated and underlying principles, of which ethics is one and aesthetics another (MacKenzie & Cushion, 2013; Torres, 2012). An aesthetic concept within football is style (Torres, 2012). It is used to describe the way of playing of a team. It also refers to the individuality of players, their creativity on the pitch (or lack thereof). Players and teams that adopt a style, show that the moral and aesthetic views of sport are linked (Torres, 2012, p304). An example of this is the appreciation of the influence of tika-taka football, with its emphasis on technique, skill, engagement with the ball, tactical intelligence and above all its creative attacking philosophy (Dura-Vila, 2010). Interpretivism is therefore increasingly seen by many researchers as both an effective paradigm for providing context for PA in football and understanding the inherent aesthetic integrity of football (Booroff et al, 2016; Brown & Potrac, 2009; Carling et al, 2013; Cushion & Jones, 2006; Dura-Vila, 2010; Groom & Cushion, 2005; Jones, Armour, & Potrac, 2004; McKenna et al, 2018).

Quantitative data

PA in football has grown rapidly, both in terms of academic research and applied practice. This leads to the generation of huge amounts of quantitative data to provide for a better understand of technical and tactical aspects of football. Quantitative data has further depths of knowledge when influencing intelligence is added to enhance meaning not just for coaches and players but also for the enjoyment of fans looking for a deeper understanding of the game. (Wright et al 2014)

An entire industry has been developed to provide quantitative PA services to teams (Wright et al, 2014). Companies such as OPTA and Instat, collect huge data sets for the English Premier League (EPL) and the International Sports Promotion Society (ISPS) Handas National League in New Zealand, respectively. These organisations provide layers of data that can be blended to create almost infinite combinations of binominal ratios. Once these layered quantitative ratios are created, a deep qualitative understanding is required to untangle meaning. Coaches often have their own definitions on action variables, aligned to their coaching philosophy (McKenna et al, 2018; Middlemas & Harwood, 2018). For example, the exact definition of turnover – the moment of the loss of possession – used by the big data organisations, is not always trusted by coaches and analysts (Carling et al, 2013; Wright et al, 2014). Additionally, the team's analyst may often conduct a secondary analysis to present to the coach, for the purpose of interpreting the data into the coach's playing philosophy (Blackett et al, 2018; Wright et al, 2013).

The quantitative data derived from each game provides context and clarity if used creatively, not only for applied practitioners, but also fans and commentators. Wright et al (2014) point to the 'blogosphere' where fans themselves are able to access OPTA and English Premier League Index data. Insightful bloggers (such as The Liverpool Supporting Atmospheric Scientist) have taken the data and provided subjective influencing information around it to provide 'quality interpretations' of exactly the type shown above (Wright et al, 2014). An example is the term 'None Stat all Stars' (Wright et al, 2014, p720). This phrase is used to describe a category of player who requires deeper contextual understanding to explain their performance data. These players may be pivotal in the success or failure of the team but whose contributions are not fully appreciated within current match analysis techniques (Wright et al, 2014). An example of this kind of player is James Milner. The Liverpool player earns a constant selection in the team at 33 years of age. In outwards appearances he is

remarkable only for being unremarkable. He is roundly acknowledged by his team mates and by other elite players as the hardest working player off the ball. His athleticism and intelligence create space for other players, and he is adept at covering gaps when defenders go on the attack (Wheelock, 2019). These players, such as Milner, who are the hardest to quantify, can also be the most important because of the holistic, fluid, dynamic nature of football (Wright et al, 2014). These players require both extensive layers of quantitative data to fully understand their worth and contextualising interpretive knowledge regarding the qualitative aesthetic principles of the sport (Torres, 2012; Wright et al, 2014).

Delivery of PA in football

PA in football is mostly delivered to the players by the head coach in group meetings (Booroff et al, 2016; Carling et al, 2013; Groomet al, 2011; Groom & Cushion, 2005; Hughes & Bartlett, 2015; MacKenzie & Cushion, 2013; Wright et al, 2013). The pedagogy is often linear. Linear pedagogy concerns itself with the transmission of information from an individual with expert status (coach) to an individual with learner status (player) (Cassidy et al, 2009; Jones et al, 2004). This has been described by Chow, Davids, Button and Renshaw (2016) as a *reproductive* style.

> A reproductive style has traditionally emphasised the repetitive attempts of learners to perform coach- or teacher-prescribed movement patterns (considered to be optimal) in isolated drills and decontextualised practises...Here a teacher/coach retains a mental template of a movement pattern…towards which all learners should aspire. (Chow et al 2016, p26)

PA sessions are often coach based and not player based examples can be seen in research on the youth development phase where coaches deliver PA sessions in classrooms to seated groups of players (Bates, 2018; Beasley, Gist, & Imbeau, 2014; Booroff et al, 2016; Brown & Potrac, 2009; Middlemas & Harwood, 2018; Wright et al, 2016).

In their survey of English elite club performance analysts, Wright et al (2013) show that 74.5% of performance analysts report a linear pedagogic group delivery as 'the predominant approach' to post-match feedback, 'most of the time' within their club or academy. Unit presentations (where teams break into the defence, midfield and attacking units to present internally or to the other units) are also included in this delivery style. These presentations are found by Wright et al (2013) to be less prevelant with only 11.1% reporting this as the predominant approach. When the academy analysts are removed from the overall findings, this drops to 0%, indicating that it is not used as a form of PA delivery in the elite senior level clubs in the survey (Wright et al, 2013).

The prevalence of linear pedagogy in PA delivery is supported by McKenna et al, (2018) in their study of neophyte analysts in Scottish elite club football. They report in their research that the newly trained PA's are frustrated with the linear group delivery style. The formal pedagogy, described as 'direct' and 'coach-led' by Light (2004), offers mostly closed questions for players, not allowing scope for players to answer. Interactions are limited and reflect the power imbalance of the coach-athlete relationship (Chow et al, 2016; McKenna et al, 2018; Wright et al, 2013). This form of delivery style is consequently deemed by the analysts in McKenna et al's (2018) study as a wasted opportunity in terms of player engagement. Interestingly, the analysts from one of the clubs reported that the *players* are happy with the current engagement levels (McKenna et al, 2018). It is speculated that the reasons for this can be that 1) players themselves do not know what increased player engagement looks like (Light, 2004), 2) players have high levels of respect and trust in their coaches and accept the coach's analysis without question (Nelson, Potrac, & Groom, 2011), 3) players might not like to engage in a public arena and bring attention to themselves (McKenna et al, 2018; Middlemas & Harwood, 2018) and 4) that the coach player power relationship is so strongly in favour of the coach that players do not feel empowered to speak

up (Booroff et al, 2016; Brown & Potrac, 2009; Horrocks, et al., 2016; McKenna et al, 2018; Middlemas & Harwood, 2018; Middlemas & Harwood, 2019). Players are social actors in a power dynamic that it is not in their interest to change. A strong motivation for the players is conforming to the coaches expectations of buy-in to enable selection for the next match. Buy-in is the level of conformity with the requirements expected for selection set by the head coach. This is distinct from engagement, which is where an individual is an active participant in the 'quality of effort afforded to learning' (Hu & Kuh, 2002, p556) . If there is to be a shift away from linear pedagogy, naturally it has to come from the coaches (Chow et al, 2016; Evans, 2012; Harvey, 2009; Light, 2004).

Within football clubs, the analyst is the individual most often responsible for the creation of video clips for the head coach (Carling et al, 2013). In many clubs the role has further expanded to include the production of individual clips for the athletes themselves (McKenna et al, 2018; Middlemas & Harwood, 2018; Wright et al , 2013). Research has indicated that the production of individual clips for player self-analysis can be a valuable delivery system which may enable self-reflection towards athlete positive self-modelling of behaviour (McKenna et al, 2018; Middlemas & Harwood, 2018; Middlemas & Harwood, 2019; Wright et al, 2013). In the limited amount of qualitative research data conducted so far, there is evidence pointing to a smaller, although sizeable, percentage of players who express a preference towards non-coach-led feedback interventions (Middlemas & Harwood, 2019). The recommended use of peer-to-peer debriefing as a form of analysis in nonlinear pedagogy (Chow et al, 2016) indicates the potential direction non coach-led PA in football could take in the future.

Performance analyst academic pathway

Blackett et al (2018) identify two categories of career trajectory in their study of coaching pathways into professional rugby and football. These pathways are labelled 'active' and

'passive' (Blackett, et al, 2018, p213). Individuals on the active pathway take care to prepare for a coaching career during their athletic career. In contrast individuals on the passive coaching pathway make reactive decisions post-athletic career, usually after being approached for a coaching role (Blackett et al, 2018). There are indications that pathways into performance analysis in football are similar. One example. in the UK, of an active pathway is offered through the Professional Footballers Association (PFA) in partnership with tertiary education providers, such as Solent University in Southampton. The majority of professional academy players do not progress into senior elite football (Booroff et al, 2016; Brown & Potrac, 2009; Cushion & Jones, 2006; Middlemas & Harwood, 2018). As the organisation concerned with the welfare of professional players, the PFA is instrumental in helping prepare academy players for life after the academy. Through these partnerships, ex-academy players (among others) can take an active pathway into performance analysis, arriving in elite football with a tertiary qualification (Butterworth & Turner, 2014; Wright et al, 2013). Other active pathways for performance analysts are through the advanced coaching pathways offered by the national football bodies. Wright et al. (2013) found that 85.4% of analysts had undertaken a sports science or sports coaching degree, 31.3% had earned a master's degree, 58.3% of analysts had FA Level 1 coaching badges, 56.3% had FA Level 2 coaching badges, 18.8% had UEFA B coaching badge and 6.3% had completed their UEFA A coaching badge (Wright et al, 2013). This corroborates findings elsewhere which shows the analysts are expected to have a high level of knowledge of the game, to interpret the many action variables in accordance with head coach's football philosophy (Carling et al, 2013; Groom et al, 2011). This immersion requires a qualitative understanding of the socio-cultural context of both the game and the club they are working in (Booroff et al, 2016; McKenna et al, 2018). Despite these levels of qualification Wright et al (2013) found that only 66.7% of analysts have a full-time contract with the club they work for, the remaining 33.3%, are part-time,

interns or unpaid volunteers. It can therefore be considered a highly technical, complex, high-pressured role, yet low status, overburdened and poorly compensated (Booroff et al, 2016; Carling et al , 2013; Groom et al, 2011).

Role of the analyst in a team

The time scale for turnaround between games at the elite level is often too short for analysts to provide in-depth coding, match analysis and manage the production and storage of large data sets (Wright et al, 2013). Many analysts, therefore provide a 'reductionist approach' to their analytics (Wright et al, 2013). Analysts work quickly to produce a 'snapshot' for review by coaches (Carling et al, 2013). Analysts often review their analysis immediately with the coaches (89.9%), filtering information to ensure that tactical, strategic and philosophical components are aligned to the requirements of the coach (Wright et al, 2013). Researchers discovered that analysts are then likely to subsequently change their initial analysis after interaction with head coaches (McKenna et al, 2018; Wright et al, 2013). This is understandable if the key contextualisation is from the perspective of the coach's footballing philosophy (Wright et al, 2013).

The production of clips and data sets for the head coach is the primary function of the role of the analyst (McKenna et al, 2018; Middlemas & Harwood, 2019; Wright et al, 2013). The secondary role is the production of individual clips for players (McKenna et al, 2018; Middlemas & Harwood, 2019; Wright et al , 2013). Researchers report that by taking responsibility for individual clips and guiding athlete self-modelling, analysts can gain trust and build respect with both coaching staff and players (McKenna et al, 2018; Wright et al , 2013). Qualitative research into PA in football has recently highlighted the importance of political and micropolitical contexts driving PA delivery (Booroff, Nelson, & Potrac, 2016). In a similar vein, researchers have also shown that analysts use the creation of individual clips to buy social capital by demonstrating their efficacy to players and coaches (McKenna

et al, 2018). This is an important insight as it is shown that analysts often need to justify the existence of their role to cynical coaches (McKenna et al, 2018). Indeed, it has been demonstrated that much extra-curricular activity is undertaken to prove game-knowledge to establish efficacy with the coaching staff and the playing staff (McKenna et al, 2018; Middlemas & Harwood, 2019; Wright et al, 2013).

Player perceptions of PA.

Research has shown that learner's perceptions play a large part in learner engagement (Alvarez-Bell, Wirtz, & Bian, 2017; Hu & Ku, 2002) and form the boundary of expectation (Alvarez-Bell, Wirtz, & Bian, 2017). In education this has been understood to mean the learners perceptions of the institution, which are in turn based on the previous experience of the individual in relation to their socio-cultural background (Hu & Kuh, 2002). Many players are young people who have come straight from high school and still hold negative feelings about the classroom environment (Groom & Cushion, 2005). Early research into PA in football delivery found that overall youth players would prefer to be on the pitch learning with the ball at their feet (Groom & Cushion, 2005) and some players fail to recognize an inherent value in PA at all (Middlemas & Harwood, 2018).

Pedagogic delivery that balances structure and support is argued to be the most suitable environment for learner engagement (Beasley, Gist, & Imbeau, 2014). This has implications for PA in football as research in the canon has shown the psychological impact of PA on players is affected negatively or positively by the delivery *climate* (Middlemas & Harwood, 2018). That is, whether the coach is consciously, or unconsciously, using the PA feedback session for negative or positive reinforcement (Booroff et al, 2016; McKenna et al, 2018; Middlemas & Harwood, 2018). Whether the climate of delivery is used to reward or punish athlete behaviour has a resultant impact on how players subsequently view PA and their expectations and perception of future delivery (Middlemas & Harwood, 2018).

In football, players have expectations of the behaviour of their coaches (Cassidy et al, 2009). Added to these player expectations, qualitative in-depth interviewing has reported that coaches have expectations of their players expectations of coach behaviour (Cassidy et al , 2009). Often players will initially report a preference for linear pedagogy. Despite their own preferences, coaches may deliver linear pedagogic styles in order to maintain their social and cultural capital (Cassidy et al, 2009; Groom & Cushion, 2005; Jones et al, 2004). This is problematic as the delivery of engaging PA necesitates a movement away from the linear pedagogy of player expectations (Evans, 2012; Light, 2004). For coaches, this movement away from linear to non-linear PA pedagogy can be accompanied by a drop in social and cultural capital if not carefully managed and articulated (Light, 2004).

The importance of engaged learners.

The difference between 'perceptions of' and 'engagement with' Performance Analysis is an important pedagogical distinction. Researchers in the early 2000's concerned themselves with investigating player perception of PA in football (Groom & Cushion, 2005). This was to encourage coaches to gain feedback from their players to identify if their PA delivery was having a negative or positive affect on their players (Groom & Cushion, 2005).

From investigating whether players were negatively or positively affected by PA the line of questioning within the PA in football canon was extended to investigate whether players were engaged with PA (Wrightet al, 2016). Since pedagogy concerns itself with teaching (Light, 2004; Jones, et al, 2004), the level of player engagement with PA can be considered a measure of the impact of the learning (Wright et al, 2016). Measuring the impact of the learning can in turn allow coaches to modify their behaviour for more effective delivery of PA, with the aim of increased performance outcomes (Carling et al, 2013; Cassidy et al, 2009; Evans, 2012; Groom & Cushion, 2005; Harwood, 2008; Light, 2004; McKenna et al, 2018; Wright et al, 2016).

Goal setting has been shown to be a powerful pedagogical intervention for increased learning behaviour (Harwood, 2008). PA is a powerful tool for goal setting between coach and players, especially when used individually in a one-on-one delivery model (Middlemas & Harwood, 2018; Wright et al, 2016). Isolated individual goal setting has been witnessed by coaches as a factor in youth players who successfully transition to elite players (Middlemas & Harwood, 2018) and had been recognised as a positive factor in the coach athlete relationship outside of football (Maitland & Gervis, 2010). The use of PA as a basis for athlete goal setting can set the foundations for further deliberate structured practice (Middlemas & Harwood, 2019). Recent research points to elite players adopting deliberate structured practice as a behaviour that both enables progression into the elite level and as a strategy to maintain performance to allow them to remain competitive at that level (Horrocks, et al, 2016). A long-term case study of ex-Manchester United and England full back, Gary Neville, showed that Neville's preparation involved mental visualisation of what his opponents would be doing on the part of the pitch where he was playing. This was based on long term memory recall, backed up with the video information he was receiving. The single-case design (SCD) research shows that Neville developed operational skills to use the video software for his own match preparation, preferring to see the first 30 minutes of the game. This enabled him to identify the player he would likely pick up in the match and how the opponent commonly uses the passing lines and angles with the opposition support players (Horrocks, et al., 2016).

The qualitative emic methodology of Horrocks et al's (2016) research identifies which particular PA data is of value to a successful professional footballer, which PA data isn't considered important and how Gary Neville's engagement with PA it fits with his own wider structured deliberate practice. This is of importance to researchers and applied practitioners as understanding how individual elite professional player's engage with PA, broadens the epistemological understanding of player engagement with PA in general. By

illustrating one example of what an elite player wants to know and how they want to interact with the data, broader implications can be drawn. Are player's not engaging with aspects of PA because applied practitioners are not delivering the specific data the players require for their own structured deliberate practice? The study illustrates the highly individualised yet highly structured PA requirements of the players and the importance of specific athlete tailored delivery (Horrocks, et al., 2016).

Beyond Gary Neville's absorption of individual analysis, there is an absence of data on the PA delivery models being delivered during his time as a Manchester United or as an England player. Currently, the available evidence on player engagement indicates a more rigid and hierarchical structure in the senior phase of elite football than in the youth development phase (Booroff et al, 2016; Brown & Potrac, 2009; Cushion & Jones, 2006; McKenna et al, 2018; Middlemas & Harwood, 2017; Potrac & Jones, 2009; Røynesdal, Toering, & Gustafsson, 2017; Wright et al , 2014). Evidence indicates that youth development coaches refine their pedagogy to become more direct as the players get ready to transition to the senior game, as a form of preparation for the senior environment (Booroff et al, 2016; Brown & Potrac, 2009; Middlemas & Harwood, 2018). This transition to more linear pedagogy between the youth development and the senior phase can be understood in terms of transitioning from the learning phase to the consolidation phase of a player's career. Youth development coaches consider themselves pedagogues because they are mostly concerned with facilitating learning (Booroff et al, 2016; Brown & Potrac, 2009). Head coaches in the senior phase might not consider their delivery of PA in the same light as youth coaches and instead expect a higher level of responsibility from their players regarding their own player development (Cassidy et al, 2004; Horrocks, et al, 2016; Maitland & Gervis, 2010; Morley, Morgan, & Nicholls, 2014; Røynesdal et al, 2017; Schroeder, 2014; Vinson et al, 2016).

The pedagogy of the coach is intrinsically tied into the coach's own football philosophy and as such there are as many pedagogic styles as there are coaches (Cassidy et al, 2009). They will all, however, sit somewhere on a pedagogic continuum from linear to nonlinear (Light, 2004). What little research there has been on player engagement with PA in football has found that players reported higher levels of engagement when they were asked questions and given the opportunity to engage in discussion (Wright et al, 2016). That is, higher levels of player engagement were reported associated with the characteristics of non-linear PA pedagogic delivery than with traditional linear delivery.

What does engagement look like to deliverers?

Engagement has become a buzz-word that is used across many disciplines (Hu & Kuh, 2002). It is usually used in reference to the people who reside on the less powerful side of a dialectic. For example, voter engagement in politics, student engagement in education, worker engagement in industry. The implication is that those needing to be engaged are coming from a position of disadvantage (Hu & Kuh, 2002).

In the education literature there is little agreement on the exact definition of learner engagement beyond that it is complex and has many contributing factors (Zepke, Leach, & Butler, 2014). Despite this lack of agreement there has been considerable work in the education literature to define, observe and facilitate student engagement (Alvarez-Bell, Wirtz, & Bian, 2017; Beasley, Gist, & Imbeau, 2014; Hu & Kuh, 2002; Krause, 2005; Krause & Coates, 2008; Kuh, 2000; Kuh, Hu, & Vesper, 2000; Zepke, Leach, & Butler, 2014). A commonality identified across the education literature is that student engagement appears to lie in a sweet spot between institutional structure and pedagogic support. Too much structure and not enough support dis-engages students as does too much support and not enough structure (Alvarez-Bell et al, 2017).

To enable linking of the reasons why coaches delivering PA and teachers delivering lessons need to measure engagement, a sideways step into the education canon is necessary to understand why the topic became of concern to teachers and education researchers. Classroom observations of student behaviour by teachers does not always match academic assessments (Alvarez-Bell et al, 2017). Teachers found that the assessment scores of their classes can indicate that their students were performing well, but the behaviour of the students can indicate otherwise. This kind of behaviour can be inattention, the appearance of falling asleep, disruptive behaviour or the non-participation in activities (Alvarez-Bell et al, 2017). The quantitative results, the tests and assessment scores, did not match the qualitative assessment, what the experience of being in the classroom actually felt like (Alvarez-Bell et al, 2017; Hu & Kuh, 2002). In this respect the definition offered by Hu and Kuh (2002) is that learner engagement is the quality of effort the learner exhibits. This has implications for researcher in PA in football, as this approach allows for player engagement to be measured by both the responses from the players and by the observations of the coaches (Zepke et al, 2014).

Literature gap

Qualitative investigations into player engagement with PA are valuable to researchers, coaches and analysts as they provide both a measurement of athlete learning (Wright et al, 2016) and as a qualitative measurement of an athletes efforts towards learning (Hu & Kuh, 2002). This is of interest to those seeking to better develop pedagogical delivery to enhance cognitive decision making for players in a fast developing fluid and dynamic sport. This has implications for similar semi-professional or amateur football teams and clubs internationally and within New Zealand.

New Zealand has a national framework for coach development, the Coach Development Framework (CDF), and a national strategy for its implementation, the New

Zealand Coaching Strategy (Cassidy & Kidman, 2010). The development of the CDF and the creation of the New Zealand Coaching Strategy in the early 2000's is considered by researchers to be a reflection of a paradigm shift by SPARC (as then was, now Sport New Zealand) towards the adoption of more athlete centred coach education (Cassidy & Kidman, 2010). Qualitative research into pedagogical delivery in national league sports clubs in New Zealand shine a light onto the state of this paradigm shift. Investigations into player engagement are therefore timely and pertinent are they are the proverbial canary in the cages of current pedagogical practice. This thesis identifies a gap in the literature for qualitative research to investigate the quality of effort afforded to player interactions with PA from the perspectives of the stakeholders, the analysts, the players and the head coaches. As such it is qualitative PA research that has direct implications for those interested in sports development in New Zealand and wider implications for PA research in general beyond the PA in football canon.

Chapter 3. Study of autoethnographic reflective diary of assistant coach/analyst

This chapter uses qualitative content analysis of data from the autoethnographic reflective diary of the thesis author. The thesis author is an industry-practitioner (Iacono, Brown, & Holtham, 2009), in two roles: 1) as assistant coach of the Women's team and 2) as performance analyst of the Men's team. These two roles are held concurrently over the same season. Valuable qualitative insights into player engagement with PA in football are inferred using an autoethnographic reflective approach. Comparable research in the education literature has shown that teacher observations of student behaviour can be important signifiers of engagement (Alvarez-Bell et al, 2017; Bates, 2018; Beasley et al 2014; Hu & Kuh, 2002; Krause, 2005). Frequently this type of qualitative research has utilised teacher reflection as one strand of an investigation into learner engagement. The other strand is a qualitative content analysis of student reponses to questioning around engagment (Zepke et al, 2014).

The observation of the engagement of others with one's own practice is, by nature, epistemological (Goldman, 1986). It is an investigation that asks the participant observer to question how they know what they know (Hartley, 2007). Within the education literature, there is an epistemological tradition of reflection dating back to 1923 and the work of John Dewey. This tradition states the value of teachers reflecting on their pedagogy, which for Dewey (1997) is a process distinct from merely thinking.

> So much for the description of the more external and obvious aspects of the fact called *thinking*. Further consideration at once reveals certain subprocesses which are involved in every reflective operation. These are: (*a*) a state of perplexity, hesitation, doubt; and (*b*) an act of search or investigation directed toward bringing to light further facts which serve to corroborate or to nullify the suggested belief. (Dewey, 1997, p9).

In the qualitative content analysis featured in this chapter, factors influencing player engagement are coded from the autoethnographic observations of the assistant coach/analyst on the behaviour of the players (Alvarez-Bell et al, 2017). In this process, the assistant coach/analyst must reflect on the quality of effort afforded to learning by the players that has been observed (Hu & Kuh, 2002). In conjunction with the following two chapters, which are studies offering insight into the perspectives of the players and head coaches, this study is therefore the strand offering reflection from an industry practitioner that offers deeper, holistic understanding of the process of player engagement.

Method

Autoethnography

Autoethnography is rooted in participant observation field studies, particularly in social and cultural anthropology (Fetterman, 2010; Philaratou & Allen, 2006). It can be understood through its etymology to be a study (graphy) of the self (auto) *and/within* the group (ethno) (Ellis, 2004; Holman Jones, 2005). This relationship between the writer, the written about and the writing itself, manifests itself in first person accounts with the author writing as 'I' (Ettorre, 2013; Fetterman, 2010; Groves, 2011; Sparkes A. , 2002).

Reflective diary

For this study a reflective diary was kept for the entirety of the 2018/19 football season. Entries are made as soon as possible after the occurrence of an event deemed worthy of recording. The diary is written onto a Google doc which was kept on a Google drive, a commonly used cloud-based storage system. Entries into the diary are written using multiple devices in multiple locations. Often the diary is written into while travelling to away games, on planes or on buses. The reflective diary does not contain verbatim quotes but conversations as remembered by the author are recorded as dialogues recreated through the

author's mind for exploration and investigation (Kovacs & Corrie, 2017; Sparkes, 2002). In this respect the voices represent those of the actors as perceived through the authors *reflexion* (Butterworth & Turner, 2014; Knowles & Gilbourne, 2010; Perrone, 2010; Sparkes, 2000) and the intention is this be held as the lived truth of the author's experience (Sparkes, 2002).

Ethics

This project was reviewed and approved by the Otago Polytechnic Research Ethics Committee (Appendix G) in consultation with the Kaitohutohu Office (Appendix F). Prior to the commencement of the study, before each PA delivery session and throughout the study, the players and staff were informed the assistant coach/analyst was conducting research for a master's degree thesis through an autoethnographic reflective diary. This was to ensure informed consent was obtained from the ethnographic participants as approved by the Otago Polytechnic Research Ethics Committee (Appendix G). In accordance with Ellis (2007) informed consent was supported by process consent, to ensure that the integrity of the qualitative research was that of best practice. Process consent required the autoethnographic researcher to continually check in with the participants to ensure that participants were still happy to take part and that there was an understanding of the research process, the reason for the study, their rights and responsibilities and their rights to withdraw from the study. The participants were continually informed that they would be anonymised in the research and that unique identifiers would be implemented to protect the confidentiality and privacy of participants. All participants were informed that they will be given access to the final study results and have the right to reply.

Participants

The autoethnographic participant in this study is the assistant coach for the women's team and the analyst for the men's team. These are two separate roles, held concurrently by the

lead author of the thesis. The ethnographic participants whose actions are recorded in the reflective diary are the players of the ISPS Handas New Zealand Men's National League (n=24) and the New Zealand National Women's League (n=22) teams during the 2018/19 season. Additionally, the coaching staff for each team (n=2, men's team and n=2, women's team) are included in the reflective diary.

The participants in the reflective diary are anonymised by using the replace function in Google docs to change the names throughout the whole document. Replacement names are taken from a list that bear no resemblance to any names of the participants and are randomly applied. An iterative process of re-reading the reflective diary occurs to ensure that similar names are not allocated. Further iteration leads to anonymising teams and locations to avoid implied identification of either. The coaches are referred to in the reflective diary as; Peter the Men's team head coach, Mauricio the Women's team head coach and Derek the Men's team assistant coach.

Procedures

Qualitative content analysis

This study uses qualitative content analysis methodology (Cho & Lee, 2014), of the general inductive approach (Thomas, 2006). Data is collected by an activ-participant observer and all the data is autoethnographic (Cho & Lee, 2014; Elo, et al., 2014; Thomas, 2006). Qualitative content analysis of a general inductive approach allows open coding to categorise the how, what and why of different data sources (Cho & Lee, 2014). Qualitative content analysis starts after data collection is complete and does *not* propose building theories or finding the relationships between categories (Cho & Lee, 2014; Elo, et al., 2014). This is considered by qualitative researchers as an important distinction between the general inductive approach and grounded theory (Cho & Lee, 2014).

Open coding

Microsoft Word version 10 is used for open coding. This is done by copying the reflective diary and deleting all entries not relating to the theme of player engagement with PA. A thematic search of all references to moments relating to video analysis and observed player behaviour is conducted. A secondary search of the original Word document ensured that no entries are incorrectly deleted. A process of iteration occurs and definitions of behaviour according to the theme are widened (Thomas, 2006). This process proves that saturation has been achieved when no new entries are included in the new Word document (Glasser, 1992; Guba & Lincoln, 1994; Thomas, 2006). The document highlight function within Microsoft Word allows for colour coding of the emerging themes (Cho & Lee, 2014; Glasser, 1992). This coding reveals two further sub-themes. An iterative process allows the grouping of similar codes into thematic alignment until saturation is achieved and no further sub-themes emerge (Elo, et al., 2014;Thomas, 2006). With two themes, and two sub-themes the qualitative content analysis methodology allows grouping together to create four categories. Further iteration achieves saturation and no other further categories emerge (Thomas, 2006).

Stakeholder checks

In accordance with recommendations for a general inductive approach, stakeholder checks are carried out with the participants recorded in the reflective diary (Thomas, 2006). This is in the form of submitting a draft copy of the findings for review to the participants within the club (Thomas, 2006). Informal stakeholder checks are carried out with participants while entering reflections into the diary during the data collection period (Elo, et al., 2014; Thomas, 2006). This is used to clarify initial comments and to establish the in-situ credentials of the researcher (Cho & Lee, 2014; Sparkes & Douglas, 2007; Thomas, 2006)

Findings

The initial theme of the qualitative content analysis is identified as player engagement with PA, as defined by the research question. A process of coding player behaviour indicative of quality of effort with athletes' learning from the autoethnographic data was conducted. By cross referencing for commonality across the codes, the sub-themes of Group and Individual delivery are identified. These are labelled according to whether the code is associated to PA delivered to a group or to an individual athlete. The sub-theme is labelled Delivery Model.

Within the Delivery Model, further categorisation separates the codes as to the type of pedagogy of the Delivery Model. Two types of pedagogy are identified and coded. The first is labelled Formal Pedagogy, where the pedagogy is defined as being linear or direct, with the assistant coach/analyst in the role of expert delivering information to the athletes as passive learners. Formal pedagogy is coaching centred.

The other type of pedagogy that is coded is labelled Informal Pedagogy. This type of pedagogy is nonlinear in approach, allows for two-way dialogue between assistant coach/analyst and the athlete, and could fit the descriptions from the education literature as guided learning and can be considered athlete learning centred.

Factors are identified from the addition of the two sub-themes with the two categories. These four factors are labelled Delivery Style. These are Group Formal, Group Informal, Individual Formal and Individual Informal. The findings of the qualitative content analysis indicate that, from the autoethnographic reflective data, player engagement with PA is observable through comparison of athlete behaviours indicative of qualitative learning effort between the four Delivery Styles (figure 3).

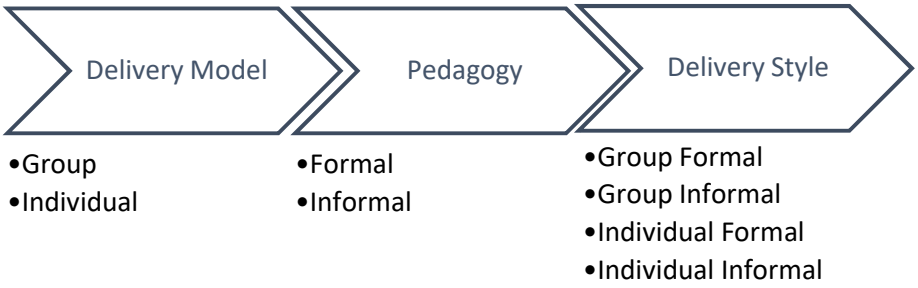


Figure 3:Themes, categories and factors influencing player engagement from qualitative content analysis of autoethnographic reflective diary of assistant coach/analyst

Group Formal

Group Delivery Model combined with Formal Pedagogy.

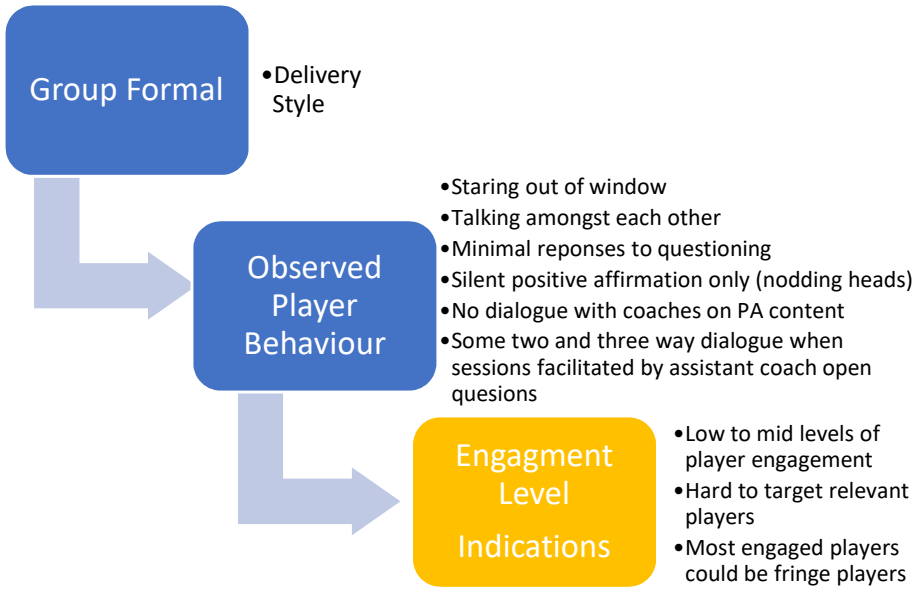


Figure 4: Group Formal delivery style findings

The qualitative content analysis of the reflective dairy of the assistant coach/analyst indicates player behaviour associated with passive affirmation and low levels of player engagement with the Group Formal delivery style (Figure 4).

The group formal delivery style is trialled in a dry run in pre-season for the Women's team as part of a process of establishing the pattern of the training week. The following

passage is from the reflective diary and describes the first Group Formal (GF) delivery style session for the team.

> The Regional Federation have just taken over the lease of the office from the local Super 16 Rugby side. The "Bull Pen', where the regional federations Football Development Officers have their desks, is long and narrow with windows on one side looking out onto the Super 16's training pitch and the beyond, down a tree lined avenue, to the rugby stadium.
>
> Out the window rugby club support staff carry tackle bags into position and post-graduate interns set up cameras and attach Go-Pros onto poles.
>
> The pristine facilities where the rugby players are whooping and growling as they warm up stand in stark contrast to the area dedicated to the NWL team, which is across the road and earmarked for demolition for immediate upgrade to a turf.
>
> But the Regional Federation is grateful it's managed to get the lease on this office space and one of the reasons is that it has been designed for the back wall to be dedicated to presentations, with a ceiling mounted projector.
>
> Players arrive in ones and twos. Most are wearing club hoodies from their winter league clubs. We have given out track suit tops, bottoms and polo-shirts for travel and match day as well as two training kits for practises. Dotted around a few players are wearing a combination of training kit, match day kit and some leisure wear.
>
> A few of the players occasionally glance down out of the window and watch the Super 16 rugby team's training, which includes some well-known All Blacks players.
>
> We'd already had start of season team culture meeting where we agreed that Mauricio and I would wherever possible attempt to facilitate learning and wherever possible hand ownership to the players.

I started the meeting then with the statement that this is ‘what it could look like, if this works for you or we could develop a different style of delivery to suit you. All depends on what works and what suits our short amount of time together’.

I’m feeling nervous though. I wasn’t before the session. What’s changed? I have planned the session out, both in terms of the PowerPoint with video links to my desktop and my off script ‘checklist’ – areas I am happy to talk on if we go there. I notice players looking around, out the window at the rugby training. Some are sitting at the back and staring vacantly at me like they are at the back of a boring geography class. Some are just having quiet conversations together, not looking my way.

“Right, let’s get started, video sessions….” I start the session off, my voice loud and punchy as it would be on the pitch.

The first clip showed a critical moment from a game versus Waverton from last year. The winger pressed the centre back, which left the full back free and resulted in our flank being outnumbered 2v1 ending in a goal. The critical moment to be brought to the squad’s attention was the initial press of the centre back.

The next clip showed the strengths of the next opposition (Eastern) followed by a clip showing their weaknesses.

“Ok so what we have here is the opposition playing the ball across their defence to switch play. Clara decides now that she’s going to put pressure on the centre back with the ball. As she moves across….”

I play the clip down and we can see that a quick counter attack leading to a goal was the immediate result of Clara’s action.

Players are looking up at the video and there is gentle nodding in agreement with what I’ve said. Still are some chatting to each other and a couple more are still staring out of the window.

> "Ideally, we'll have 10 minutes in here, go over 2 or 3 clips and then walk over to the pitch and carry this over into our training, any questions?"
>
> Fiona Philips, the captain raises her hand. "So, are we going to do two of these sessions a week? I think one is enough, more than enough maybe…"
>
> Mauricio replies, 'Yeah we will not do them every week, whenever we need to see something, we need to fix together we will do them, maybe some weeks no, maybe some weeks yes'.

Clearly the observed behaviour indicates low levels of engagement from the players. The flow of information is one directional, indeed the only two-way conversation concerns the relevance of the sessions themselves. Mauricio is quick to respond as this is a trial run, Group Formal sessions are adapted to occur immediately before training, in a room close to the pitch and concentrate on a scouting clip of the opposition that relate directly to an element of the training session.

> In the old listed building of the Ferndale Stands, I set up my laptop and the Regional Federations portable projector in one of the changing rooms.
>
> Commonly used as an away changing room, the room is small, opposite the showers and although there is the dangling fixture, without lightbulb. Effervescent indoor light not something, of course, that any self-respecting New Dundee football club would deem appropriate for the match day organisation of an away team.
>
> In these circumstances, however, it's the perfect setting for a scouting video session on our next opponents, Waverton.
>
> Some of the players arrive, look confused to see me setting up in the next door changing room and hover around outside, others come in and ask what I'm up to. Once the players change, they eventually drift in and do their boots up while I sort out the lenses on the projector.

Mauricio arrives and announces that everyone who has said they are coming tonight is here.

I have cut 7 or so clips together from Waverton's game against Tai Waka (our next opponents after them) and put title cards in black and white preceding every clip to describe the critical moment before we see it.

I identify the oppositions key players and the players invite the players to take over the conversation, with questions like, '*what do we know about X*?' or '*I've just loads of her getting to the line and cutting back, you were in the same team last year what else has she got?*'

"Yeah she's very fast"

"Don't let her get the ball in there'.

"Are they playing her there, really? Ok."

"Those two, sisters, yeah they're under rated we need to be careful, they'll always look for overlaps'

I bring out a clip on where the goal keeper finds herself while their pressing.

"Wow!"

"Somebodies *got* to have a go if we win it high"

The session was around 20 minutes. The video was then uploaded to Facebook the next day, Saturday. 24 hours before the game.

Sammy, Pippa and Kiri are all in the starting line-up but missed tonight's VFB session. I told Sammy there was some information in the video that was specific to her position in the press

In the passage above the engagement level is higher than in the first example of the GF delivery style. The session is relatively short at 20 minutes, is before training and is a scouting clip on the weekend's opposition. Two and three-way dialogue is encouraged and

questions are open, not leading. However, the absence of the three key players at the session dealt a major blow to the group efficacy of the team. This is a scenario where the players that are the most engaged and informed are the players likely to be starting the game from the bench as substitutes. The absence of the three key players did result in this case with them being dropped from the team. A key concern in the GF delivery style is that most engaged players in the session, might not be the players to whom the PA data is the most relevant. It is not an effective way of engaging targeted players.

Group Informal

Group Delivery Model combined with Informal Pedagogy.

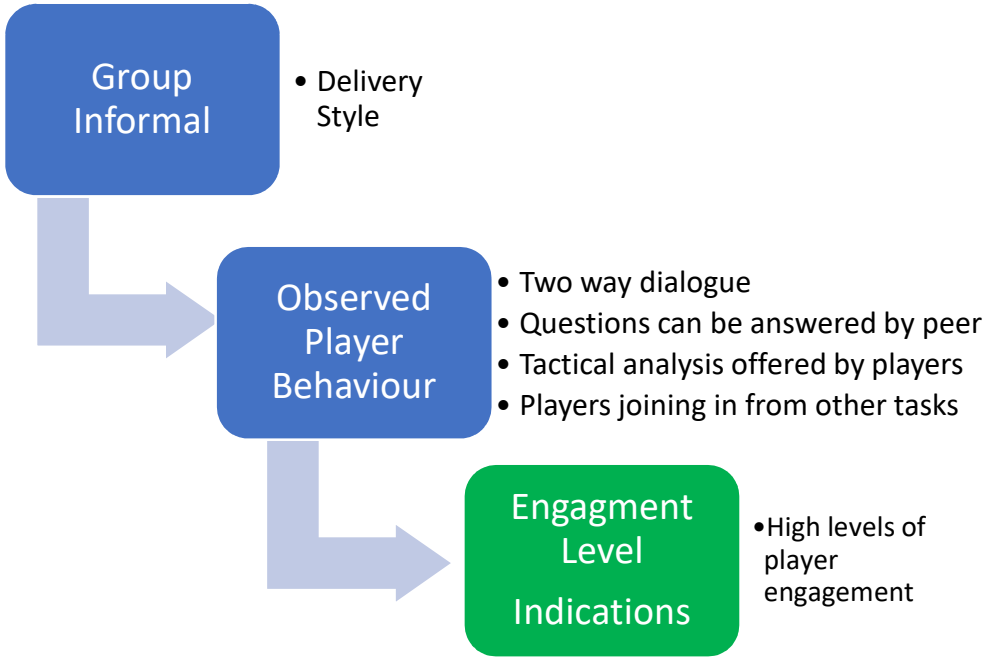


Figure 5: Group Informal delivery style findings

The qualitative content analysis of the reflective dairy of the assistant coach/analyst indicates player behaviour associated with high levels of player engagement with the Group Informal delivery style (Figure 5).

The delivery model Group Informal (GI) is characterised by a PA delivery to the group facilitated by the coach using a *more* non-linear pedagogy. The group meeting can be

of an ad-hoc, non-scheduled nature, or one where the primary focus of the group meeting is not PA. The group does not have to be the whole team, it can be the units within the team or merely 'interested players.'

For the women's team a GI meeting can be in the local airport departure lounge. A group email can be sent before the team arrival at the departure lounge. Corresponding tactical and game plan information can be sent out as Power Point presentation to provide context. While assembling in the departure lounges the conversation would occasionally turn to these group e-mail, if players expressed confusion or if they had not seen the clips, group informal meeting can ensue, sometimes in groups of two or three.

> In the 'checking in' area of the airport. We are travelling up, same day, to play Waverton Federation.
>
> Ashling is talking to Jo, purposefully within my earshot.
>
> "Have you seen the press'?
>
> "Wait, no"
>
> "Yeah it's in the email, aye Stu"?
>
> Me, "yup, you should really have a look at it"
>
> "Ok"
>
> Ashling then goes on to explain Waverton's high press to Jo exactly as I have outlined in the tactic manager infogram as per the video clips.
>
> Jo "Right so should I try and always avoid our centre-backs?"
>
> Ashling and me, "No"
>
> Jo, "Ok"

Ashling “Just need to know that’s what they are doing, because if we can play out of it, we bypass three players”

Me “Yeah, ideally if you can get it into the middle we can turn and go…’

Ashling “Or to the fullback. They’re trying to cut down the options so that the ball has to come back to the keeper”

Me “and you make a mistake…. but they do that by luring you to make the pass to the centre back, it’s a lure” I over-pronounce the “r” sound for effect.

Straight away it’s time to head off and sign our bags in.’

Group informal delivery was found to be particularly useful with the goal keepers and the following except from the reflective diary gives an example.

Regional Federation office working on a VFB session scouting Te Wai. Labour Weekend is an NWL double header weekend with all the teams (except Middleton) having double headers against local derby sides. Which means that Taitonga Rovers play Te Wai twice over three days.

Three of the last five goals for Te Wai have come from corners. I code all the corners, successful or not from the last three games. Luckily the last three games are filmed with most camera operators including the corner-kicker in shot. This is great as it’s not a given that this is going to happen. Some ops concentrate on the players in the 18-yard box. From time to time I make a mental note to ask New Zealand Football if they could ask all the camera operators to make sure they include the corner-kicker, so we can see what, if any, signals are being given before the kick.

I identify two signals that Te Wai are using, one hand up (either left or right) or both hands up? One hand up is the back post and both hands up is the penalty spot. I code all the corners and make a clip, freeze framing and zooming in on the hand signals, before zooming out and playing the corners in real time.

Charli is the goal-keeping coach, but she is also the Regional Federations Women's Development Officer and as such is sitting at a desk in the next office.

"Charli, you got a minute?" I ask bringing my laptop with me.

'Yeah Stuey, what you got there?"

"Corners for Te Wai. They do well off them. Obviously well practiced. Have a look at this and tell me what you reckon'?

"Alrighty…"

Charli watches the clip down.

"Bloody hell, Stuey you're right. Hand up back post, two hands – where's that, middle of the 18, peno?'

"Yup, they even have similar runs, just different delivery. There's Bonnie, boom at the back post…"

"Are you thinking, what I'm thinking?'

"Probably not, but we should probably do corners tonight Charli?"

It's a lovely summers evening in University Park, the NWL training area is not cordoned or gated off and, although the area is booked with the local council, there are still groups playing ultimate frisbee and touch rugby. There are plenty of students milling around, enjoying the sun and the having a laugh together in the final weeks before exams.

The mood in the NWL squad is not so jovial. Jules is frowning the whole time. Her exclusion from the game against Waverton is not going to be quietly forgotten. Mauricio is running a passing practice, but the players are chatting to each other and not focusing. When the session starts, they are slow to start, and the training takes place at a low tempo.

I've already decided with Charli to work with the goalkeepers today. But I feel sorry for Mauricio and the way he's being treated.

Eventually the players lift themselves and the session appears from the outside to be back on track but there is a subtle power play at work now.

The goalkeepers are all happy and keen to practice corners.

"Ok, so I've made a video and it's here on my phone if you want to …"

The keepers come over and huddle next to me as we watch the video down.

"So, two hand signals, the thing to remember though, is the runner. She's trying to draw you one step toward the near post. Let her go. Stay where you are and deal with the back post".

"yeah, what about the peno spot one"

I go back to the phone and put the cursor on the time line to the relevant spot and we watch again

"yeah same movement, just delivery to a different spot, ok."

Charli takes some corners and I position myself for the header according to Charli's hand signals. Kiri joins in. I look over, there is a discussion with Mauricio taking place. Kiri has had enough of the dissent.

"Can I do anything?"

"Yeah great, can you (reaches into pocket) can you be this person and make this…. run, please?"

The analysis can be clearly seen to be part of a two-way dialogue between assistant coach (and in this case the goal-keeper coach as well) and the relevant athletes. The analysis takes place away from formalised indoor settings and is used in the area and context (opposition corners) of the game. The football problem (what position for the goal-keeper to take up at

defending corners) is offered without a predetermined solution that is to be delivered by an expert to a learner. The athletes are given the opportunity to arrive at their own solution after the assistant coach has given them analytical data.

Individual Formal

Individual Delivery Model with Formal Pedagogy.

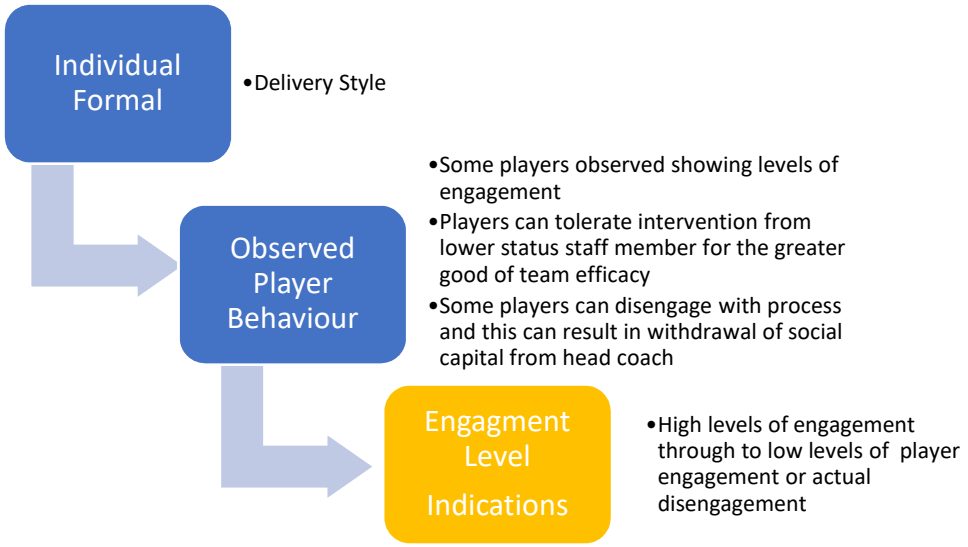


Figure 6:Individual Formal delivery style findings

The qualitative content analysis of the reflective dairy of the assistant coach/analyst indicates player behaviours associated with high levels of engagement, tolerance of the process and also some instances of low levels of player engagement and instances of hostile disengagement with the Individual Formal delivery style (Figure 6).

Individual Formal delivery style (IF) is identified as one-on-one analysis sessions, where the athlete is led through clips by a coach or analyst. While this can clearly be considered individual in terms of delivery model as there is only one athlete in the session, the presence of the other participant, the coach or analyst, requires that the pedagogical definition be considered *formal* due to the coach/athlete power dialectic.

As with the other delivery styles, two-way discussion is an important feature of the Individual Formal delivery style. For this to occur the athlete must buy-in to the expert credentials of the coach or analyst. In the club these expert credentials were conferred through the social capital of the head coach. It is the borrowed social capital conferring expert status from the head coach onto the assistant coach/analyst that forms the basis for athlete buy-in to the power dialectic.

'So, you know I'm doing a critical moment clip from now?'

'Yeah makes sense, we don't have time to all sit down for 20 minutes'

'Right, so I'm trying to dig deep on one moment that turned the game and turn that round and have a clip that says, this is what we did well.'

'Yup'

'Well I'll just give you a little heads up on this one, which was the lead up to the red card which started from an attacking free kick'

'I've already had a look down on my clips that you sent. It's one of the first things I do. What could I have done differently?'

'Looks like...did you lose confidence in Ryan and come over and try to sort it out yourself….?'
'Not really lose confidence in him but I sort of second guessed he wasn't going to make it'

'Yeah you can see where you change course and go to the ball…'

'Yeah I should have kept dropping…'

'I've freeze framed it and shown your body shape, basically now you have got yourself in front of the ball, facing our goal….'

'Yeah, I thought I could get more power onto that header back than I did…'

> ‘Yeah at this point you don’t have any other option…. split second stuff’
>
> ‘Yeah but I could have done it better’
>
> ‘So, this is going out tonight, just so you know what it’s about. We keep getting hit on counter attacks and sometimes it is those split-second decisions about body shape or positioning that cost us…’
>
> ‘Yeah, cool. I mean I’ve already gone over this myself but I’m happy for this to go out, so we’re all on the same page…’

As far as the player in the preceding passage was concerned, he has already done his homework on the clip on his own in his own reflective analysis. He is happy for the analyst to be involved in a one-on-one and he indicates that this can be a good way of spreading group efficacy despite time constraints. There’s no indication from the preceding passage that the player considers there to be any learning in the one-on-one and instead has seen the occasion as a chance to help upskill the analyst. The player in this case doesn’t mind an analyst focusing on a technical rather than tactical mistake. This player cannot be considered to be fully engaged as, although polite, he does not accept either the structure or support on offer from one side of the two-way dialogue.

An important contextual consideration is that this one-on-one occurred at a time in the season after the clubs Women’s team’s season was finished. The duality of roles held by the autoethnographic author *could* be a source of confusion from the players perspective. With no clear transition phase from the role of Women’s team assistant coach to Men’s team analyst, the Men’s team player is now expected to engage in a one-on-one with the Women’s team assistant coach? There is therefore no observed engagement with a two-way dialogue in the encounter although there is some quality of effort afforded to the *process* as long as this benefits team efficacy.

This is in contrast to the reaction from another player to the same critical moment clip. This player is one of Peter's senior players, Karl, who is also one of the senior players whose clearly stated preference is to have less PA and more pitch time. Karl is also the left footed free-kick taker.

> Just before training on Friday before the first game of 2019, at Kapai Gardens. The coaching staff get changed in the make-shift physio room. There are a couple of physio tables setup and the physios are prepping for the players arrival,
>
> As I arrive, sit down and put my boots on, Karl O'Doyle is on the table having his ankle strapped.
>
> Peter and Derek Hogan are also getting their boots on.
>
> Peter "Woah, Karl O'Doyle's not happy with you!" (Meaning me).
>
> Karl O'Doyle "What?"
>
> Peter "yeah he's blamed you for the red card at the other end!"
>
> Karl O'Doyle 'Oh yeah - I went for the wrong corner - sure that was a great shot you reckon I should have gone for".
>
> Me "Not you, somebody else with a right foot to swing out!"
>
> Karl O'Doyle "Oh"
>
> Peter "yeah he wants you *off* freekicks!"
>
> Derek: "Yeah, it's all *your* fault Karl O'Doyle - not tracking back! You were the only one to get back behind the ball, weren't you?"

The senior player, Karl, has also seen the clip in his own, reflective time. He has then discussed the clip with Peter, the head coach and expressed his feelings. The tone of the

encounter switches quickly from banter to a more aggressive tone, indicating outright hostility. The tone and content of the dialogue can indicate rejection of the analysis, leading to rejection of the analyst's expert credentials. The analyst's expert credentials are underwritten by the social capital of the head coach and in this dialogue, the social capital is removed by the head coach in the presence of the offended senior player. This finding illustrates the difficulty and complexity of the Individual Formal Delivery Style and the potential pitfalls available to analysts undertaking this approach.

The Individual Formal delivery style is intended to work in conjunction with the Individual Informal delivery style. Players are sent links to their individual clips for self-reflection. The Individual Formal delivery allows style two-way discussions that arise from these clips. Often the instigation would come from Peter, the head coach. In the following passage, Peter has asked if the analyst can 'go through' a conceded goal with the centre-half, Cliff Seymour, and the right-back, Jimmy Sergeant to 'see what they say'.

> The clip sent to. Cliff Seymour and Jimmy Sergeant both have the code attached to their individual clips from Instat, labelled 'goal mistake'. A cross comes in from the left, Cliff Seymour fails to clear it away with his header. It should be directed out, to the side. It comes back down nicely for the incoming left winger.
>
> Jimmy Sergeant has been sent the code for the same action. I show it to him on my laptop in an empty office space, where we can sit together for a one-on-one.
>
> "Ah yeah, I'm too slow to react here look and I don't get close enough when I do decide to close him down. It's something I have to work on in my own game'.
>
> "Yeah that's the thing about clip, you think you might be closer and then when you look at it you go, ok, I was a metre off I could have got closer'

‘Yeah, fair play that’s right”.

He then banters with me ‘Ah sure Stuey you’ve battered me confidence now’...

Jimmy Sergeant laughs as he strides out of the office.

Despite the good-humoured nature of the on-on-one, Jimmy is quick to realise that on inspection of the clip, he is not as close to the winger as he should be and is engaged with the analysis. The one-on-one is reported back to Peter, the head coach. The use of the analyst in delivering the on-one-one is pertinent as the intervention of the head coach would make such an encounter *feel* more of a disciplinary rather than learning experience. The passage also illustrates the relationship between the Individual Formal and Individual Informal delivery styles, as the athlete has seen the clip on their own and reflected on their positioning. This reflection appears to solidify once converted to a two-way conversation with the analyst. The head coach is informed that the player is aware of his mistake and is seeking to improve that aspect of his performance without having to be involved, thus avoiding a situation that affects the players confidence.

Individual Informal

Individual Delivery Model with Informal Pedagogy.

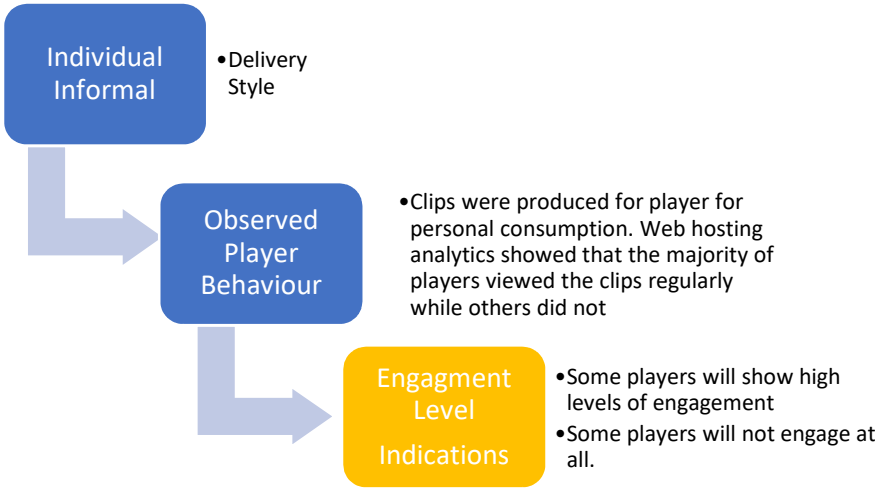


Figure 7: Individual Informal delivery style findings

The qualitative content analysis of the reflective dairy of the assistant coach/analyst indicated players' behaviour associated with high levels of engagement with some players but non-engagement for some with the Individual Informal delivery style (Figure 7).

Individual Informal analysis (II) was delivered across both teams in the club. The Men's team all received II 48 hours after match performance, to allow for emotional recall to subside. These II clips were downloaded from the Instat website where individual action codes had already been created under agreement with the NZF ISPS Handas National League, checked for accuracy, edited if necessary and then uploaded to a Vimeo site. The links to the Vimeo site are sent to the players via a social media messaging service. The Women's team does not have access to Instat and consequently the analysis process took longer. Five players are selected weekly from the Women's team to have all individual action clips produced. The players selected for targeting are chosen by the participant observer acting as assistant coach after watching the game on a laptop editing system. Colour coded edit markers are attached to the time codes on the editing software's time line. These edit markers related to all the chosen players' actions. The edit markers are re-watched and appropriate run-in times are included to allow for game context. The gaps in between the edit makers are edited out using Final Cut Pro editing software, leaving the individual action clips of the five players selected. The actions are then grouped sequentially together for each player and II clips are produced. The clips are uploaded to the vimeo site and links are sent via a social media messenger service. These are also sent to the players 48 hours after the match. Players received clips for individual actions, whole match and a unit specific clip, for example Penetrations in F3rd.

The following paragraph is from a conversation in the reflective diary with a Men's team senior player who is asked why they preferred the whole match clip.

> Yeah, it's good for me to watch the whole match down. If you're just watching clips it's like, how did we get into this situation? What was I doing off the ball? Was I cutting off the right channel? Did someone show him inside, outside? It's all connected.'

Scouting clips are included in the individual clips if Mauricio decides there is an important tactical implication for a player. For example, the following example is from after a team meeting before an NWL match against a side employing a midfield diamond. Clips of the opponent's previous match are sent to the wingers. Examples of when to press the full backs and when to press the same sided midfielders are taken from the game.

> After breakfast, Mauricio leads the feedback session concentrating on our pressing in midfield.
>
> After Mauricio's session I find Polly (our right winger).
>
> "Hi Polly. Did you look at the video of Tai Waka last night."
>
> 'Yeah"
>
> 'What do you think?'
>
> "I think the full back on my side is their weakest link, if I can put her under pressure, force her to make mistakes, especially if they try to play out through her…'.
>
> "Ok, sweet, sounds great, if they switch sides?'
>
> "I leave the full back and pick up the corner of their diamond, yeah yeah.'

This is an example of open-ended questioning, just after the group session, the assistant coach is able to remind Polly of the different style of pressing her position requires against a different formation. Polly engages with the individual analysis and this is confirmed in the game with an early goal after Polly applies pressure on the full-back, forcing a mistake. This

is interesting to note, as Polly has independently identified the likelihood of the opposition full back making a mistake. This was the point that sticks with her, although the point the assistant coach wants clarity on is that Polly should pick up the full-back and the left-midfielder depending on where the ball is.

The following passage is from the reflective diary and is taken from a social media direct message with a player following up on the all actions clip that had been sent to the player. The intention of communicating this way is to clarify that the player has viewed the clip and whether there is any further clarification that requires a one-on-one Individual Formal delivery style session.

> 'Hi Rachel, how's it going? Did you get a chance to look through the videos?'
>
> 'Hey, yeah except the full game'
>
> 'How do you feel about your own performance? That's not a loaded question btw'
>
> 'I'm quite happy about it, thought that I did a lot of stuff that led to some good chances…I often find they (the midfielders) hold the ball too long, which causes a run that wasn't meant to be straight into one (a straight run).We we're left lonely when we received.'

The player has taken an active part in the effort afforded to the quality of their own learning (Hu & Kuh, 2002) and has raised questions around the supply to her from the midfielders. This does not result in an Individual Formal delivery style one-on-one with the player but instead draws the coaching staff's attention back to the midfielders and helps modify training by concentrating on penetrations into the final third and the speed of delivery.

Discussion

From the perspective of the assistant coach/analyst the Delivery Styles are identified as the primary influencing factors on player engagement. This would be expected as the Delivery Styles each have a unique blend of structure and support (Alvarez-Bell et al, 2017). From a wider, sociological pespective the structure of an amateur club directs and guides the agency of the assistant coach/analyst (Bourdieu, 1972). For example in an amateur club, time constraints impact PA delivery. In terms of player engagement these are compensated through increasing support from the staff (Alvarez-Bell et al, 2017). However, increasing staff support places larger demands on budget, which in turn alters the structure within the club (Bourdieu, 1972; Falcous & McLeod, 2012). The assistant coach/analyst (and all the other club staff) are trying to balance time, budget and support to equip players with relevant information to enhance performance outcomes. The use of four different Delivery Styles should be seen through the lens of the assistant coach/analyst's agency adapting to the amatuer structures of the club (Bourdieu, 1972). The ability to recognise player engagement and immediately change and adapt the delivery of PA is therefore of paramount importance to best utilise limited resources.

Group Formal

Group Formal delivery style is coach-led pre-match feed-forward or post-match feed-back PA delivered to a group. In their survey of English elite club performance analysts, Wright et al (2013) reported that 74.5% of performance analysts reported this as 'the predominant approach' to post-match feedback, 'most of the time', within their club or academy. Unit presentations are also included in this delivery style but were found by Wright et al (2013) to be less prevelant with only 11.1% reporting this as the predominant approach. This drops to 0% when academy (not elite) analysts are removed from the equation (Wright et al, 2013).

This is supported by McKenna et al, (2018) in a study of performance analysts in Scottish elite football clubs. The analysts reported instances of frustration with this type of delivery style. The formal pedagogy, described as 'direct' and 'coach-led' by Light (2004), offers mostly closed questions for players, not allowing scope for players to answer, interaction is limited and reflects the power imbalance of the coach athlete relationship (Chow et al, 2016). This form of delivery style is deemed by the analysts studied in McKenna et al's (2018) research as ultimatley missing the potential for player engagement. Interestingly, the analysts from one of the clubs reports that the *players* are happy with the current engagement levels (McKenna et al, 2018). It can be speculated that the reasons for this is that players themselves do not know what increased player engagement looks like (Light, 2004), players have high levels of repsect and trust in their coaches and accept the coach's analysis without question (Nelson, Potrac, & Groom, 2011), players might not like to engage in a public arena and bring attention to themselves (McKenna et al, 2018; Middlemas & Harwood, 2018) and lastly that the coach player power relationship is so strongly in favour of the coach that players do not feel empowered to speak up (Booroff et al, 2016; Brown & Potrac, 2009; Horrocks, et al., 2016; McKenna et al, 2018; Middlemas & Harwood, 2018; Middlemas & Harwood, 2019).

The use of PA as a political tool is recorded elsewhere in the PA in football literature where PA is observed to be used micro-politically to prepare youth players for deselection and rejection from youth academies, rather than for its stated purpose of improving performance outcomes (Booroff et al, 2016). This delivery style is not used at all by the Men's team and is used by the Women's team as part of a process of the demonstration of expert credentials by members of a new coaching staff (Cassidy et al, 2009). The head coach and the assistant coach are both new appointments and in the first few weeks of their tenure the coaching staff are eager to build social capital with their players. This is attempted by

implementing a new training regimen which includes an extra night of pitch training, nutrition and hydration support, a dedicated team physio, two mornings at the High Performance Gym and regular PA sessions.

The behaviour in the example of the first GF Delivery style, of players looking out of windows, chatting to each other and not communicating with the deliverer, is similar to the reported behaviour of disengaged students (Alvarez-Bell et al, 2017). This can be clearly seen to be a delivery style with plenty of structure but lacking support (Alvarez-Bell et al, 2017). The players' behaviour is at best one of passive acceptance, for example the silent nodding, and at worst of being completely disengaged, for example talking amongst each other about a separate topic.

In the second example of the GF delivery style, efforts are made by the coaching staff to shorten the session, keep the data relevant to the training outcomes and faciliate two and three way dialogue amongst the players. However, three key player's are not in the session. The players who engage with the session are selected over the more talented players, which erodes efficacy and group cohesion. In this instance, the players who engage with the PA data are not the players the analysis is targetted at. Subsequently there are high levels of engagement from players on the fringe of the group looking to break into the starting eleven and no engagement from players who were expecting to start and did not attend.

The literature reports that while this is the most commonly reported form of delivery style (Wright et al, 2013) the fact that it is coach centred and not learning centred (Hu & Kuh, 2002) lends itself to the micro-political as its primary usage (Booroff et al, 2016). It is not a delivery style structured towards providing the opportunity to allow players to engage with their learning (Alvarez-Bell et al, 2017; Hu & Kuh, 2002; Zepke et al, 2014).

Group Informal

In contrast to the previous delivery style, the Group Informal delivery style has observable behaviour that clearly indicates elements of player engagement (Alvarez-Bell et al, 2017; Zepke, Leach, & Butler, 2014). Players are taking ownership of the subject matter and are discussing it themselves. The assistant coach has been asked to provide support, which was neither offered nor conferred in advance. Structure has been provided in the form of an e-mail, some links to video clips and a Power Point. Support is provided peer-to-peer by the players and by the assistant-coach is in a confirmatory role to help guide learning.

The levels of engagement seen in the group of goalkeepers is in marked contrast to the atmosphere with the adjacent main training session, which is taking place immediately after the three players had been dropped for disciplinary reasons relating to non-attendance of the second Group Formal session. The ability to show clips on phones illustrates that video clips are ubiquitous even in amateur training sessions. The PA is being delivered on the pitch and organisation is towards creating the moment the upcoming opponents have scored goals from corners in the previous two games. The pedagogy is nonlinear as the players are encouraged to question and innovate in the session and although there is an element of leading the session, the assistant coach is facilitating guided learning and seeking to provide suitable constraints to tie the practice to the performance requirements.

The behaviour of the players indicates that there is considerable quality of effort afforded to their own learning (Hu & Kuh, 2002). Players are digging deeper to uncover the complexity of initial questioning. There is the freedom to talk directly to a peer to guide learning and the assistant coach/analyst helps guide discovery by indicating the players are looking in the correct *areas* for their answers (Zepke et al, 2014). This delivery style can be considered to be extremely well structured towards facilitating player engagement with PA as

it allows for the players to afford effort into the quality of their own and others learning (Alvarez-Bell et al, 2017; Zepke et al, 2014).

Individual Formal

The *senior* players in the three diary passages illustrating Individual Formal delivery styles can be considered to hold more social and cultural capital within the club than the analyst, if the analyst is *not* in possession of borrowed social capital from the head coach (Bourdieu, 1972; Blackett et al, 2018; Coleman, 1988; Field , 2003). It has been reported in recent PA in football literature that for these kinds of analyst-player interactions, the social capital of the head coach acts as a gatekeeper to confer the analyst expert credentials with senior players (McKenna et al, 2018). Despite the majority of analysts being shown to hold both relevant tertiary qualifications and advanced coaching certificates (Wright, Atkins, Jones, & Todd, 2013) this is not considered enough currency to gain social capital within the structure of the club. Evidence from the coaching literature indicates that formal tertiary qualifications and advanced coaching certificates are not considered by professional coaches, across multiple sports, to be as important as experiential training (Jones et al, 2004). Within the club itself, this was considered to be 'certificate collecting', great for the licensing requirements of the club but not as highly valued as experience gained from playing at a high level or from coaching at a high level *after* gaining experience from playing at a high level.

In this sense the analyst is borrowing social capital from the head coach, who has the social capital gained from both a high level of playing and a high-level coaching career built on top of playing experience.

The power structure is therefore considered formal because although the senior player is the expert on the field, expert status is conferred from the head coach to the analyst. The analyst reports back to the head coach. In reality though, the actual conversations appear informal, with banter and humour, mostly good, but sometimes bad humoured as evidenced

with Karl. The lower status of the analyst makes it easier for conversations to occur and genuine discussion to happen without fear of consequence. Despite this outward appearance, the power structure still requires the buy in that one member of the conversation ultimately represents the head coach.

In the first passage, Cliff's respect for the head coach, allows this interaction to occur, in the hope that the process could build team efficacy, disseminate important information amongst the team and provide valuable hands on training for the analyst's coach development training. This can be seen as engagement with the process. There is no indication of quality of effort of learning in the passage though, as the player indicates that he has already engaged with the learning, on his own in his own reflective practice. This has been witnessed in the PA in football literature elsewhere, where some senior players, in similar interactions, can be considered to be engaging with the process to ensure the wider team efficacy by helping to upskill the analyst (McKenna et al, 2018).

The ability of an analyst to build relationships to establish rapport and build trust and confidence has been shown to be the primary step in a process towards achieving proffessional efficacy (McKenna et al 2018). Reactions similar to those of the second player, Karl, to Individual Formal delivery has also been reported elsewhere. This can be summed up as 'the analyst needs to remember, he's the analyst not the coach' (McKenna et al, p5, 2018). Karl can be described as furious at the insinuation in the critical moment clip that the analyst appeared to blame him for the red card incident with the goal keeper. This is in sharp contrast, to the third passage, where Jimmy is quick to engage in two-way dialogue and can be seen to take responsibility for improving performance.

The Individual Formal delivery style is effective where the analyst facilitates player led discussion. The choice of clips will often be decided by the head coach either directly or through the analyst interpreting the agenda according to the head coach's philosophy or

objectives in the coaching cycle. Negotiation with players as to what they consider to be important performance indicators is recommended to avoid conflict. This role need *not* be solely that of the analyst and can easily be considered part of the remit of an assistant coach This supports calls for the introduction of video clipping and video management skills as part of the lower level advanced coaching accreditation rather than soleley at the higher advanced levels. This would allow assistant coaches to upskill and take responsibility for clipping and producing critical moment clips as part of their coach development pathway.

Individual Informal

The production of individual clips for player self-analysis is recommended in the PA in football literature as a valuable delivery system which may enable self-reflection towards athlete positive self-modelling of behaviour (McKenna et al, 2018; Middlemas & Harwood, 2018; Middlemas & Harwood, 2019; Wright et al, 2013). While *some* players responses to questioning show very high engagement to non-coach led interventions, a smaller percentage of players, do not engage with this delivery style at all (Middlemas & Harwood, 2019). The small sample sizes in the limited number of qualitative studies indicate the absence of a middle ground, players either report high levels of engagement or they do not engage at all (Middlemas & Harwood, 2019). While this has benefits for individual athletes in the psychological area of self-efficacy (Middlemas & Harwood, 2019) the downside is that players are aware that others in the team haven't engaged with II, which has a negative impact on team efficacy (Middlemas & Harwood, 2019).

Like Gary Neville, the player in the first passage from the reflective diary can be seen to have a strong deliberate structured practice element to their approach to their own analysis (Horrocks, et al., 2016). In this respect the player is highly engaged, as their *own* deliberate structured practice provides the structure needed for player engagement (Beasley et al, 2014).

The corresponding support element is provided by their own motivation and self-drive (Middlemas & Harwood, 2019).

The Individual Informal delivery style has been found in recent qualitative research of a small sample size to be very effective in engaging players but ineffective in engaging others (Middlemas & Harwood , 2019). This study was able to demonstrate that an assistant coach/analyst's observations are similar. As the successful implementation of athlete reflection requires individual reflection and reflexion, the assistant coach/analyst should seek to link the Individual Informal delivery style to the Individual Formal delivery style to facilitate two way discussion. The following chapter includes a small sample player focus group where some player comments on this delivery style are included.

Conclusion

This study uses qualitative content analysis of an assistant coach/analyst to investigate factors influencing player engagement with PA from data from an autoethnographic reflective diary of practice. The qualitative content analysis shows that, from the perspective of an applied practitioner, the PA delivery styles are the factors that most obviously influenced behaviour associated with the quality of effort afforded to learning by the players. Four delivery styles are identified;

Group Formal, which is associated with observed player behaviour associated with either passive affirmation or disengagement.

Group Informal, which is identified with player behaviour associated with high levels of engagement.

Individual Formal, which is associated with player behaviour associated with engagement (Jimmy). Engagement with the *process* of greater team efficacy, but not with the effort of the quality of the players learning (Cliff). Other observed behaviour is hostility to being implicated in a red card incident and subsequent hostility towards the analyst (Karl).

Individual Informal, which is identified with observable behaviour suggesting from an assistant coach/analyst's perspective that some players have high levels of engagement with the delivery style while others do not engage at all.

This study provides an insight into player engagement with PA from the perspective of an applied practitioner. The holistic approach to researching student engagement, from both teacher and learner perspectives, is a recent yet important development in the education canon. Zepke et al's (2014) New Zealand based qualitative research found similarities but important differences between teacher and learner perceptions of student engagement. In the context of tertiary education, it is argued that engagement with learning is required from both teachers and students to produce 'active citizens' (Zepke et al, p395, 2014). The following chapter is a study that uses qualitative content analysis to investigate player engagement with PA using transcripts from a players' focus group. The intention is to provide the perspective of the players. This will add valuable contextual insight into the quality of effort afforded to their interactions with PA and allow for comparisons of perspective to be investigated in the discussion chapter.

Chapter 4. Study of qualitative content analysis of player's focus group on player engagement with PA

This chapter is a study utilising qualitative content analysis of the general inductive approach to uncover factors influencing player engagement with PA from the players' perspectives. This is the second of three studies using a holistic approach similar in design to recent qualitative research in the education canon (Zepke et al, 2014).

Method

Focus groups

Focus groups are chosen as the qualitative method of inquiry in this study. Focus groups are unique in qualitative research as they have the ability to promote interactions and responses from multiple respondents (Traynor, 2014). Focus groups allow conversations to be captured between participants as they explain their reality, refining and expanding on the meanings of the subject matter (Traynor, 2014). This allows for the development of multiple emic and etic discourses (Elo et al, 2014). Focus group conversations may also uncover deeper understanding through group responses, not available in one-on-one interviewing (Traynor, 2014).

Participants

The players are invited from the teams by the study secondary supervisor who does not know any of the players. The secondary supervisor is chosen to invite the players to allow for the process of deidentification. This process means that the identities are kept from the lead researcher, as the lead researcher is currently the Women's team's assistant coach and the Men's team analyst. Deidentification, is a process that allows the respondents to not identify themselves. This is different from anonymisation in which respondents are identified, then

have their identities changed. It is felt that the players feel more willing to talk openly and without fear of repercussion if they are deidentified in this manner.

Ten players are invited from each of the Men's and Women's squads to attend separate meetings. 5 players from the Women's team responded (n=5 Women's team) and 1 from the Men's team (n= 1 Men's team). Because the teams receive different delivery styles from different coaches, it is decided not to include the Men's team player in the focus group, which resulted in the focus group comprising Women's team (n=5) only.

Ethics

Ethics approval for the focus groups is sought for and approved through discussion with the Otago Polytechnic Research Ethics Committee in consultation with the Kaitohutohu Office (Appendix F). The players are supplied with the approved written participant information sheets (Appendix D) and consent forms (Appendix E). All players sign the forms prior to the focus group meeting. The consent forms are collected and kept by the secondary supervisor as agreed with the ethics panel (Appendix F). The consent forms are not provided to the lead author as this would identify the players. The players are informed they will be deidentified, have the right to reply and that the study will triangulate data by communicating with them again to clarify the meanings of the results.

Data collection

In the ethics approval process the lead author is not considered to be a good candidate for the role of interviewer for the focus groups because of the coach/athlete power dialectic. It is felt that the players might not feel free to speak up if the interviewer is in a position of power over them. To limit the shadow effect, an expert qualitative researcher is employed to carry out the focus group interviews, allowing for the removal of the influence of the agency of the assistant coach in accordance with the Heuristics described as Figured World 4 in edition 5 of

the SAGE Handbook of Qualitative Research (Kamberelis, Dimitriadis, & Welker, 2018, p696). The researcher is given an interview guide list intended to stimulate dynamic conversation (Rorth et al, 2019) and given free rein to facilitate the discovery of new thematic discoveries by the group (Beyzac, et al., 2018). The focus group's conversations are recorded onto an electronic audio device for transcription (Traynor, 2014). The secondary supervisor subsequently ensures that prior to transcription all the respondents are deidentified to the primary author (Fetterman, 2010; Strauss & Corbin, 1998). All the data from the focus group's respondents are subsequently transcribed verbatim.

Procedures

Qualitative content analysis

The same process of qualitative content analysis is applied to the personal communications (Cho & Lee, 2014; Glasser, 1992) as in Chapter three. During the iteration of the abstract stage similarities are sought between categories from the different data collection sources to establish thematic consistency across the whole study (Cho & Lee, 2014; Thomas, 2006).

Stakeholder checks

In accordance with recommendations for the qualitative content analysis, stakeholder checks are carried out with the players to identify the accuracy of the responses and to give the players opportunity to clarify their intentions and meanings (Cho & Lee, 2014; Glasser, 1992).

Findings

From the qualitative content analysis of the players' focus group transcripts two factors influencing player engagement emerge. Each factor has sub-factors, identified at the abduction phase. The first factor is coded as Player Expectations. There are two sub-factors coded within the Player Expectations factor, which are coded and labelled as negative reinforcement, and consistency. The second factor is Player Preferences. This factor has three sub factors which are coded and labelled as peer-to-peer analysis, individual actions, aesthetic quality of presentation (Figure 8).

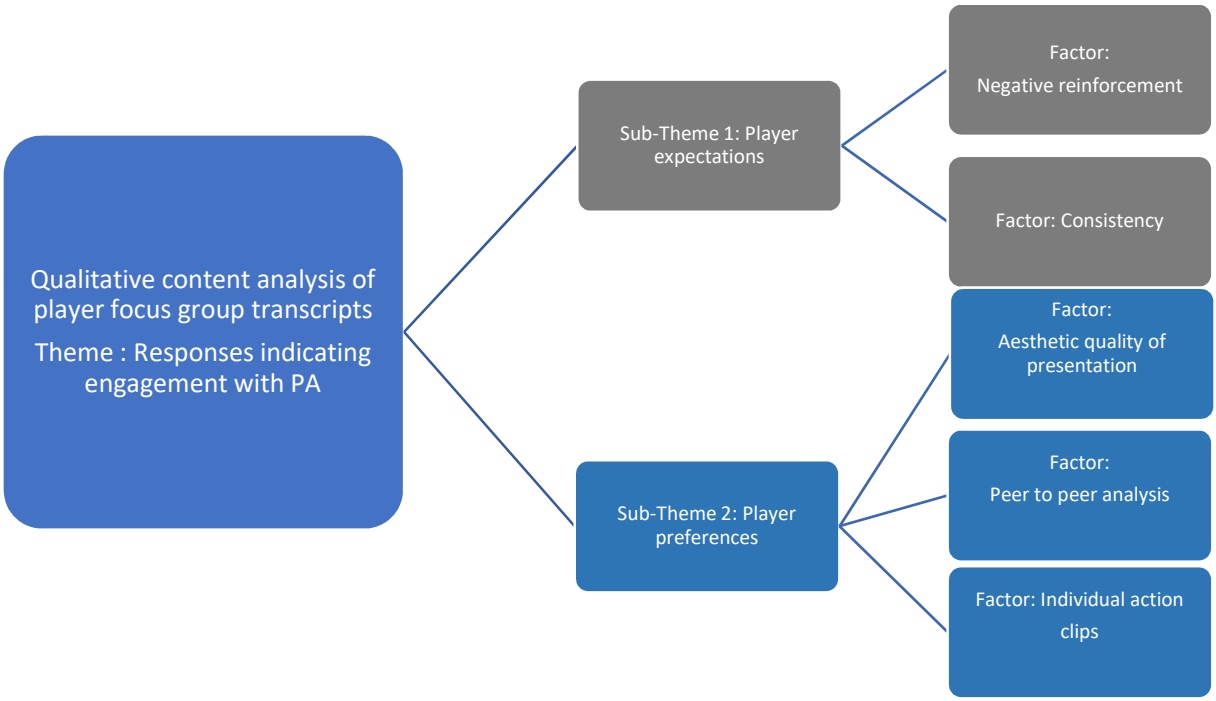


Figure 8: Player focus group findings

Player expectations

The players' expectations are based on their previous experience of PA. Many have experienced PA in the previous season with the former coaching staff. Their expectations of PA influence their engagement as they prepare themselves psychologically for a potentially negative process. This negative experience can be soothed by consistency as that allows players to prepare mentally through their developed resilience and mental toughness, so they

know what to expect, when to expect it.

Negative reinforcement

The focus group players clearly identified that the expectations of the players are that PA will be consistently delivered in a Group Formal delivery style with overt connotations of negative reinforcement.The players in the focus group all experience PA for negative reinforcement in their previous season. The initial conversation on PA recalls their negative emotions.

> Player three, 'I just think of last year when ... I think it's good, but again, you've got to be careful when you're predicting someone's mistakes, to not bring them down.'
>
> Player two, 'I was one of the players that got a bit roasted in one of our video sessions (last year) and I don't think I was thinking about that afterwards, so it's the amount of negative feedback you give. If you're going to give me negative feedback, try and back it up with something positive, maybe.'
>
> Player one, 'I think, yeah, it can be quite embarrassing if you get singled out multiple times, I agree with __. Some people, I feel like if I got singled out to an extent, I suppose I don't mind too much, but it's not as nice in a group. If it's going to be something repeated, you'd want it individual, I suppose, but I think it is good to do group stuff. Obviously, it gets everyone on the same page.'

While many players acknowledged the need to show players their mistakes in a group environment, players think that care should be taken in the delivery style so as not to psychologically impact on future player performance. The players indicate that the need for team efficacy will allow them to over-ride the negative reinforcement they expect from a Group Formal delivery style. In essence, the experience of the players indicates they do not find it an enjoyable experience, but they were willing to endure it for the good of the team.

> Player two, ‘Some people are going to react quite differently to others. Personally, I won't mind if he's going to tell me, "You did this wrong. This was really bad," but say it to someone else and they might react to it a little bit differently. It's just about knowing the players and knowing who might be okay with, maybe, more negative feedback than others and maybe who'd react to positive feedback.’
>
> Player four, ‘I think you also have to be careful with how much you give a player negative feedback, because I usually take my feedback pretty well, but I was one of the players that got a bit roasted in one of our video sessions and I don't think I was thinking about that afterwards…
>
> Player three, ‘Well, it makes you feel pretty shit. You walk out of there and you're like, "Well, did I do anything good in that game?"’
>
> Player one, ‘I suppose sometimes would you just take away from that group session, just all that negativity instead of focusing on everything else. I suppose sometimes people could just take (away) the really bad stuff, even if a lot of the time you know if you've messed up. Saying that but now say something. You know you've done something bad, so you don't need to harp on about it too much. You're getting stuck into it and you're like, "Yeah. I know."’
>
> Player three, ’Because I'm sure if you've made a mistake, lots of other people have made it too, and you just happen to be the one that the video was easiest to pull out or whatever.’

The lingering psychological impact of the negative feedback remains evident with the players’ responses. Whether there is no balancing positive feedback or whether the psychological impact of negative feedback outweighs a positive counterbalance remains debatable (Harwood, 2008). Recent research shows that negative feedback is remembered more strongly than positive feedback as positive feedback facilitates the team identity, while negative feedback facilitates the *ego*, that is, the personal identity only (Høigaard, Haugen, &

Johansen, 2017).What this seems to illustrate is that regardless of whether feedback is mostly negative or balanced, coaches cannot be *certain* of how their feedback can be perceived by players. While there is increased awareness of the importance of psychological factors there is also corresponding evidence that coaches remain unclear of the details, and uncomfortable with the process of, integrating psychology into their applied practices (Harwood, 2008).

Consistency.

The players in the focus group expect that there should be a group meeting at the start of the week. This meeting should feedback PA on the previous match. Ideally a second meeting should be held before the next game to feed forward and scout opponents.

> Player one, 'I think consistency is one of the things, because it's one of those things where we're like ... Yeah, knowing we're going to get feedback every week, what kind of feedback we're going to get, so at the start of the week we're going to get feedback about the last game. A few points of what they want to see improved, or good things we did, and then closer to the game, an analysis on the team that (we're playing next).'

> Player two, 'Yeah, especially if things just pop up and we're supposed to watch this before then, someone like __ might be like, "Oh my god, I don't have time for that," and then a few people might not be prepared and then everyone else has watched this video that they haven't had time to watch but it's not usually there. It's important as well.'

The players recognise that other factors impact the ability to apply consistency. The amateur status of the players and the age group of the group, corresponding to high numbers undertaking tertiary education commitments, leads to a reduction in the number of training sessions per week from three to two. With team members balancing playing with work and/or study, it becomes difficult to have the whole group at training sessions together, and often it is difficult for coaches to know in advance who would be in attendance. One way around this

was to use the dressing room during the pre-match team talk for home matches to deliver PA sessions.

Player preferences

Player preferences emerge in the open coding stage of the qualitative content analysis and differ from the factor, player expectations, in that there are no reported emotional negative connotations associated. The players' preferences are not pre-requisites for a level of engagement but indications of sub-factors that players feel they have engaged well with and would like to further engage with.

Aesthetic quality of the presentation

In the iteration stage of the qualitative content analysis, the coding relating to player engagement indicates that the aesthetics of the presentation is a factor influencing player engagement. The players feel they would engage with a good presentation, regardless of the delivery style. Clips and presentations exist alongside other external media sources players can easily access on their personal devices. If the quality of presentation is felt to be too poor, then players take that as a cue to not engage with the clips

> Player three, 'I know this sounds kind of silly, but I quite like the video to be quite pretty I suppose. It comes out with a title, "Okay, this game, so the next three videos are going to be on this," and it tells you this is going be this and then, throughout the videos, it's got, "This is what you're looking at," and then rather than just a mesh of 20 videos put together and you don't really know what you're looking for, I like it quite specific and really clear on what it is.'
>
> Player one. 'Video organization!'
>
> Player four, 'Yeah, I know it sounds quite silly, but I think it makes quite a big difference.'

> Player five, ‘It's like reading a book. You don't want to all be jumbled up in the different chapters ... Nice flow.’
>
> Player three, ‘Know what you're going to want to concentrate on, so maybe emphasize that a little bit more with how you structure everything.’
>
> Player five, ’It shows that they've put in the effort so you should put in the effort to watch and pay attention, taking in the things.’

Peer to peer analysis

For the women’s team players in the focus group, the group informal delivery style doesn’t have to be delivered or facilitated by the coaching staff. The players in the focus group can imagine that this delivery style can be delivered by the players. This can be in their playing units (defence, midfield, attack or goal-keeper) or for units to present to the rest of the team. This is considered particularly relevant for goal keepers.

> Player three. ’I think that goalkeepers could easily do that it if they wanted, because often coaches don't even see what goalkeepers want, their back-line and midfielders to do. I think that would be probably a position they could easily deliver a video feedback, how they're stepping up or how they're positioning themselves, maybe the back-liner or something or how far the wingers are coming back in and tackling.’

The fact that the players reported a preference for this kind of delivery style, can be indicative that they have experienced this pedagogy within their own previous education. If this is the case, then the positive experience of peer-to-peer pedagogic delivery can be harnessed by coaches for their own deliveries. This can be considered an important reminder that coaching does not sit outside of pedagogic developments. Players may come to the sport fresh from pedagoical experiences light years away from those a coach may have received during their own schooling.

Individual action clip

The qualitative content analysis at the iteration state shows indications of player engagement with individual action clips, labelled '*player x* -your actions' for the athletes consumption. This is a video clip containing all of the actions of a player within the game. The individual actions clip is skewed to possession, as by definition an action is centred on player interactions with the ball. These are always produced alongside a whole match clip which contains off the ball actions.

> Player three, 'Time that's after, so post-match, I wouldn't go watch the game by myself because I just don't have time at this point. Stu, I did like when he sent ... I know this would take so much time if he did this after, but when he sends clips to you ...'
>
> Player one, 'Your actions?'
>
> Player three, 'Your actions, yeah. That's helpful, to see what you're doing wrong, and stuff and I would like to watch something like that, but obviously that's really hard to do for each individual player and really time-consuming but that's super helpful just to see what you need to improve on.'
>
> Player two, 'I didn't even know about this until I got my one a couple of weeks ago and I thought it was really good. It is all your actions, so sometimes it's just a little bit of stuff, but ...'

The use of email and power point presentations to back up individual actions is noted as useful for players who have expressed a preference for the group delivery styles. This helped to tie the individual's performance back into the strategic overview of the team's game plan.

> Player three, 'I did like the e-mail we got last week with Power Point, but sometimes, again ... I suppose if I'm told to, I probably will, but it can also be handy to do it as a group.'

Discussion

Learner expectations are reported as a factor influencing learner engagement in the education literature and the qualitative content analysis of the transcripts of the Women's team's focus group indicates that this is also a factor amongst the small sample group of players (Beasley, Gist, & Imbeau, 2014; Hu & Kuh, 2002; Krause, 2005 ; Kuh, Hu, & Vesper, 2000). An individual's previous experience of the structure of an institution influences their expectation of continued behaviour within that institution (Bandura, 1997; Bourdieu, 1972; Falcous & McLeod, 2012; Coleman, 1988; Croad & Vinson, 2018; Jones R. , 2009; Krause, 2005; Zepke, Leach, & Butler, 2014). The players expectations are based on their experience from the previous season. Player two responds with how she feels being 'roasted' in the previous season after the initial response to open ended questioning is 'I just think about last year...' from player one. This tendency to focus on the previous season's experience illustrates how the structure of the club influences expectations of PA delivery more than even a change of the coaching staff within the club. The coaching staff is new but player expectations of PA delivery remain negative. This illustrates the importance of including discussions of pedagogy and how that relates to PA delivery when new coaching staff discuss their football philosophy with players on arrival in clubs.

The use of negative reinforcement by coaches remains widely reported in the literature (Booroff et al, 2016; Brown & Potrac, 2009; Croad & Vinson, 2018; Groom et al, 2011; Groom & Cushion, 2005; McKenna et al, 2018; Middlemas & Harwood, 2018; Wright et al, 2016). Negative reinforcement is a psychological concept developed by the American psychologist B.F Skinner during the 1930's and 40's (Nagel, 2002). It is based on the work of Ivan. P. Pavlov, who develops the idea of behavioural reinforcing with his work on animals in the early 1900's (Nagel, 2002). Pavlov uses positive reinforcement, the rewarding of treats to dogs for example, to increase the probability of repeated desired behaviour. B.F Skinner

uses animal and human experiments to show that punishment is an equally, if not more powerful stimulant in human behaviour (Nagel, 2002). Subsequent developments in psychology over the last 80 years have moved away from this paradigm, a move echoed in the PA in football literature, where sports psychologists are keen to emphasise the ethical value of a positive experience for players (Harwood, 2008; Middlemas & Harwood, 2019).

Consistency is a factor that the qualitative content analysis indicates the Women's team focus group recognised as important to player engagement. This corresponds to evidence in the education literature that finds stability within an educational institution impacts student engagement (Alvarez-Bell et al, 2017; Johnson, Johnson, & Smith, 1991; Krause & Coates, 2008). The stability of an institution correspondes to the ability to provide structure, which must be supplied in equal part with support, to enable learner engagement (Alvarez-Bell et al, 2017).

Although not trialled during this season, the players express a preference for peer-to-peer PA. This corresponds with evidence from the education literature that reports high levels of student engagement with pedagogies known as team-based-learning (TBL) (Alvarez-Bell et al, 2017). This involves students forming into small groups where instructors facilitate open and supportive interactions (Johnson & Johnson, 1985; Johnson, Maruyama, Johnson, Nelson, & Skon, 1981). Structure and support from teachers, is invested, not in disseminating information, but in building supportive and trusting links between the students within the teams. Team-based-learning has high levels of reported student engagement (Alvarez-Bell et al, 2017).

In this study the qualitative content analysis identifies a specific component of the Individual Informal delivery style, the individual actions clip, that indicates high levels of player engagement. The players mostly indicated that they had not watched the whole match clips, preferring the individual actions instead. This can be interpreted that in the amateur

environment, with many conflicting constraints on a player's time, a snapshot of the players own individual on the ball actions are of great value. Efforts to tie this Individual Informal athlete self-reflection back into two way discussions for debriefing require proper utilisation of the Individual Formal delivery style.

A video presentation with high quality aesthetics indicates the institution is aware of the qualitative nature of the relationship between athlete and coach. This corroborates with the educational literature that demonstrates that learners engage more within the structures of institutions if they identify with them (Krause & Coates, 2008).

Conclusion

This study finds that the players are largely expecting PA to be delivered in the Group Formal delivery style and that it will be used for negative reinforcement. A mitigating factor would be that the delivery will be consistent, allowing for mental preparation to employ resilience techniques based on previously learnt behaviour. These player expectations will indicate that the players not only do not engage with this expected PA delivery style, but that they need to have consistency in an expected pre-arranged time of delivery to prepare mental resilience to endure it. These sub-factors of player expectations indicate a high level of player dis-engagement. It is important to note that these are expectations. Expectations are based on what learners believe the institution they are learning in represents (Hu & Kuh, 2002). Learner expectations, based as they are on previous experience, will thus lag behind any movement from an institution towards greater degrees of learner-centred learning.

The player preferences indicate that the players engage well with PA that demonstrates that their club values them as people, through high aesthetic quality of presentation. Players' quality of learning is enhanced by the facilitating of freedom of thought, three-way discussions with coaches and peers, problem solving and the ability for athletes to discover their own solutions through peer-to-peer PA. The ability to reflect and

model their own behaviour in their own time is found to be highly engaging for some players, but as in the preceding chapter, not engaging at all for some others. It is important, therefore, to link the individual clips from the Individual Informal delivery style, with the one-on-ones in the Individual Formal delivery style as a means of debriefing post-athlete self-reflection. This not only helps with the issues raised by the players concerning team efficacy (Bandura, 1997) thus ensuring everyone is on 'the same page', but also addresses the concerns of a sizeable minority of athletes who have been shown to believe they require guidance from a coach or analyst for reviewing their own performance (Middlemas & Harwood, 2019).

This chapter is the second of three studies of a thesis adopting a holistic approach to qualitative research on player engagement with PA in a New Zealand national league football club. The following chapter investigates player engagement with PA using qualitative content analysis of the transcripts of a focus group for coaches. This follows the design of research in the education canon that consider the perspectives of teacher, student and administration/institutions (Hu & Kuh, 2002; Zepke et al, 2014).

Chapter 5. Study using qualitative content analysis of coaches' focus group on player engagement with PA

This chapter is a study using qualitative content analysis of the general inductive approach of transcripts from a coaches' focus group to identify factors influencing player engagement with PA from the perspective of the head coaches of a New Zealand national league club. Research in the education literature argues strongly that learner engagement cannot take place without corresponding teacher engagement (Ely et al, 2013). One of the prime roles of the head coach is maintaining the club's footballing philosophy (Blackett et al, 2018). The philosophy of the club can be a mitigating factor as to the pedagogy underpinning PA (Blackett et al, 2018 ; MacKenzie & Cushion, 2013). Traditional football club philosophies might have been seen as a brake on nonlinear pedagogy in the past, while coach education has concentrated on developing athlete centred pedagogy for nearly a decade (Cassidy & Kidman, 2010). Coaches have been shown to be adaptive to the circumstances of their athletes to enhance athlete learning (Cassidy et al, 2009). This means that often coaches will adopt different pedagogies for different situations (Booroff et al, 2016; Potrac & Jones, 2009). PE teachers have been also been shown to prefer different pedagogies according to different scenarios (Chow et al, 2016). This study recognises, then that club philosophy, coach education and situational context will be likely factors influencing pedagogy, in turn influencing coaches engagement with PA.

Establishing the bed-rock of what drives coaches' engagement with PA, is important before further considering the perspective of coaches on player engagement with PA. This approach recognises that there is cyclical relationship between coach and player engagement (Beasley et al, 2014).

Method

Focus groups

Focus groups are chosen as a qualitative method of inquiry in this study for the same reasons given in the Chapter four.

Participants

The participants are the male head coach of the Men's team (n=1 Men's team) and the male head coach of the Women's team (n=1 Women's team).

Ethics

Ethics approval for the focus groups was sought for and approved through discussion with the Otago Polytechnic Research Ethics Committee in consultation with the Kaitohutohu Office (Appendix G and F). The coaches are supplied with the approved written participation forms (Appendix D) and consent forms (Appendix E). All coaches signed the forms prior to the focus group meeting. The consent forms are collected and kept by the secondary supervisor as agreed in the ethics submission process (Appendix F). The coaches are informed they would be anonymised, have the right to reply and that the study will triangulate data by communicating with them again to clarify the meanings of the results.

Data collection

The data collection method follows the procedure from the study in the Chapter four.

Procedures

Qualitative content analysis

The same process of qualitative content analysis was applied to the personal communications (Cho & Lee, 2014; Glasser, 1992) as in the previous two chapters.

Stakeholder checks

In accordance with recommendations for the qualitative content analysis, stakeholder checks are carried out with the coaches to identify the accuracy of the responses and to give the coaches an opportunity to clarify their intentions and meanings (Cho & Lee, 2014; Glasser, 1992).

Findings

When applying qualitative content analysis during the open coding stage one sub-theme clearly emerges relating to player engagement with PA. This indicates that from the perspective of the head coaches, *concision* was the lone factor in influencing player engagement (Figure 9).

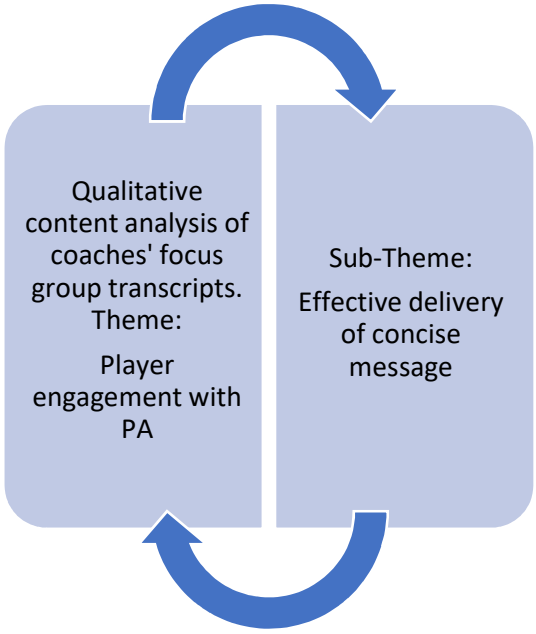


Figure 9: Coaches' focus group findings

Concision

Neither of the head coaches included in this study are advocates of the Group Formal delivery model. The Men's team did not use that delivery style at all. In the Women's team, the Group Formal delivery style is initially used to satisfy internal club political

machinations. The club has proposed to endeavour to provide equity in facilities for the Women's team with the Men's. The amateur nature of the game quickly begins to take its toll on this set up as the players have work and or educational commitments to balance with the increased training schedule. For Mauricio, the head coach of the women's team, the initial weeks of the season are spent trying to balance the available facilities without overloading the players, physically, emotionally or mentally.

> Some players are keen, and there are others are at least a little annoyed. They are trying to understand, no? So, I think it is each individually. It is very different, but to be honest, in the environment, in the world, it's not that simple to run all the things because they are keen and commit to train. But to train when you start adding more things into training like gym, like video sessions, it's when they are getting tired and they don't want that. So, we have the video (and) training three times, and it's quite hard to run it properly with three trainings and try to fit the video into those training. So, few times we just did maybe half an hour before, and just focus on three or four things.

Mauricio clearly perceives that for there to be any chance of player engagement with PA in the training set up, he will need to be careful with the timing of the video session and concise with the message. The concern from this perspective is that too much information can result in player disengagement.

The Men's team have the same coaching staff from the previous season, the same cadre of senior players. In previous seasons the Men's team have used two delivery styles; the Group Formal delivery style for group sessions and Informal Individual delivery of clips for self-reflection. However, this is an approach that Peter, the head coach, abandons for the 2018/19 season.

> This year it's probably been a little bit different for our men. Probably sort of laid back, to be honest, from what we tried to do last year. Lots of feedback

> from the more senior players and the more experienced players and stuff. There's too much focus on video analysis, looking at things rather than getting it out on the grass and trying to solve those problems. The individual stuff… they still get the whole game and get to watch themselves. The review for us in terms of the previous performance is usually Monday morning at yoga or Tuesday morning at the gym, so that's a chance for individual variable feedback. Which tends to work well before we're on the grass again Tuesday night. Don't do any group squad stuff on the previous game, we only now look at the next opposition. And again, that was quite a player led around we have enough time to check what happened last week ourselves unless there are glaringly obvious issues

For Men's team head coach Peter, it is his senior players' concerns about time constraints and how to effectively use that time that drives him to abandon the Group Formal delivery style all together.

> Last year we spent probably 20 to 25 minutes before training going through video. And again, the more senior players were like, "Look, we'd rather just have a quick look and get out and get working on it." Because that's where they see the value. "Just give us the quick pictures and let's walk out." That's where we're at, to be honest. We've totally stripped it back.

A concern for Peter is that without concision, PA leads to players who have a tendency towards anxiety and over-analysing their performance. A Group Informal approach means that Peter can manage the anxiety of these players more effectively.

> I think there's a little bit of everything in every squad. I think from a cultural perspective, the fear that I would have is the real inquisitive player that wants to analyse everything. That's the one I would worry about with the video becoming a negative experience, they totally analyse to death. The other ones, I'd imagine over time if you can develop a relationship with them well then, "Here's your key moments, here's the key actions, here's just the game." I wouldn't get it right on everybody, but I'd imagine the players that I know in

two or three years might be confident, who just watches their own. And who just wants to look at the opposition, so I think it's about developing a relationship over time to be honest.

Discussion

The head coaches are seen to agree that if there is any chance of engaging their players with PA, it has to be with effective and concise information that cut through the myriad of other distractions and commitments in their players' busy lives. For Mauricio it is because of a ramping up of activity as the club works to achieve parity between its Men's and Women's teams in a restructured season. For Peter the desire to maximise time on the pitch and to avoid player anxiety were important drivers of concision being an influencing factor on player engagement with PA.

Clearly all the senior players in the Men's team and a portion of the players in the Women's team's preferences are to 'get out on the pitch'. While this corresponds to similar findings in a previous qualitative investigation into elite youth academy player preferences (Groom & Cushion, 2005), in the study presented here the head coach recognises and *acts* on the senior players' preferences to get on to the pitch. The social capital of the senior players interacting with a head coach is different from the social capital of youth academy players, expressing their preferences to an academy coach. In Groom and Cushion's 2005 study there is no indication that the players' preferences, to get onto the pitch over sitting through PA sessions, is enacted by the youth academy coaches. It is not in the youth academy coach's interests to change the pedagogy as the academy structure serves a micropolitical agenda geared towards preparing players for either rejection or the professional environment as a junior (i.e. low status) player (Booroff et al, 2016). For a senior grade head coach, however, the interests of team efficacy requires the senior players' preferences to be met. The senior players want more pitch time with minimal Group Formal PA delivery. Peter engages with

this request and meets it. Peter recognises for there to be any engagement with PA in this scenario, it has to be short, sharp and concise, using any of the other delivery styles apart from that described as Group Formal in Chapter three.

Conclusion

This study is the third in this thesis which uses qualitative content analysis of the general inductive approach to investigate player engagement with PA in a New Zealand national league football club, from assistant coach/analyst, player and head coach perspectives. The findings show that, from the head coaches' perspectives the only factor influencing player engagement with PA was concision. That is, a small, informative, well timed piece of information that delivers a timely, important technical or tactical message.

Chapter 6. Discussion on the studies

This thesis uses qualitative content analysis to identify the influencing factors on player engagement with PA in three separate studies. This chapter will bring the preceding three chapters together to discuss the wider implications of the findings. Time and financial constraints undoubtedly are influencing factors to some degree. These constraints lead coaches and analysts to the necessity of adaptability and inventiveness just as much as towards stagnation and resignation. It is this adaptability and inventiveness that leads to the assistant coach/analyst adopting four different delivery styles through the season, the head coach of the Men's team delivering PA sessions in hot yoga rooms and the Women's head coach in dressing rooms, hotel lobbies and conference rooms.

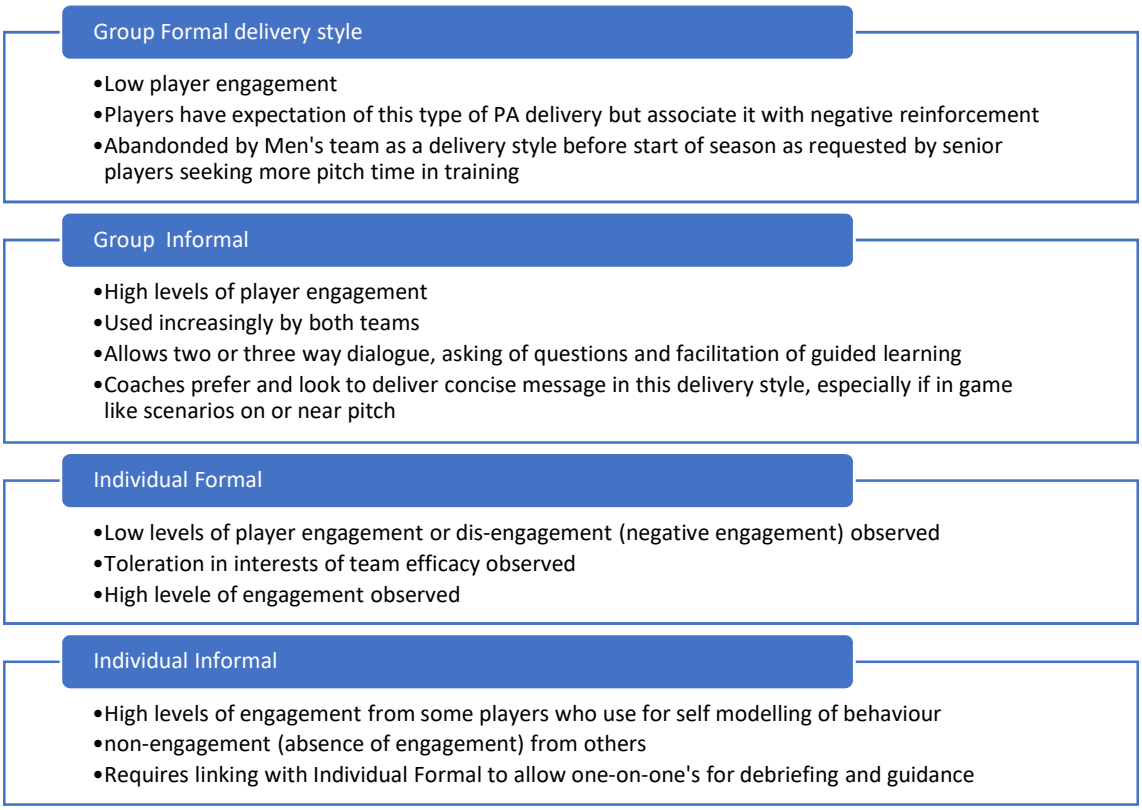


Figure 10: Findings across the 3 studies by delivery style

The results of the three studies show clearly that player engagement is strongly dependant on the type of PA delivery style, a mix of delivery model and pedagogy (Figure 10). What is apparent from the first study in Chapter three, is that the agency of the analyst is

not as effective in pedagogical delivery as it is in the creation of clips and data for the head coach. For personal agency to be effective within the structure of a football club, it has been shown that a high level of social capital is required to enable the agency of the actors within (Bourdieu, 1972). In football terms, this social capital comes from a playing career equal to or above the level of the grade the team is playing at (Blackett et al, 2018; Potrac et al, 2002; Cushion et al, 2003). Some ex-professional players and referees have taken the tertiary educational route to become analysts, giving them some social capital towards developing team efficacy with coaches and players (McKenna et al, 2018). The majority of analyts however, do not have this ex-pro background, coming instead from tertiary education with FIFA approved advanced coaching certificate courses, to the offer of internships and negotiated, often part-time employment status (Butterworth & Turner , 2014; Wright et al , 2013).

It is recommended that PA delivery styles be explained to the players when head coaches are appointed at clubs. This is to avoid confusion as to negative and positive modelling as player expectations are tied to the club structure and not the individuals within the clubs (Hu & Kuh, 2002). This should occur during initial buy-in meetings when head coaches explain their philosophy to the players and staff. At this stage the analysts should also be introduced (along with the other support staff) and given a strong endorsement from the head coach to ptovide them with the required social capital to perform the role (Coleman, 1988). If analysts join the staff during the tenure of an established head-coach, it is important that they are introduced and endorsed at a team meeting.

This thesis identifies confusion around where in the structure of a semi-proffesional or amteur football club the performance analyst should be located. Ideally in professional clubs, the analyst(s) is within the Technical Department. However, if the Technical Department consists of one intern, the identification with the Coaching Staff is strong. This is

compounded by the requirements of the small club 'all-hands-to-the-pumps'approach with the analyst marking out areas for small sided games, managing warm-ups and refereeing training games while the coaches observe player behaviour. Despite reported friction in the literature (McKenna et al, 2018) and anecdotal remarks on the training pitch to remember that 'the analyst isn't a coach', it is easy for the lines to become blurred.

This supports discussion on the merit of the separation of qualitative and pedagogical aspects of PA to be solely the responsibility of coaches and for the quantitative data and statistical analytics to be the responsibility of analysts. Further investigation is required into the applicability of the separation of these responsibilities and how both qualitative and quantitative strands of PA can seek to positively challenge each other to find new perspectives and solutions.

The results from the three studies support previous findings that indicate that direct pedagogies fail to engage players as they are not active participant learners (Cassidy et al, 2009 ;Croad & Vinson, 2018; Evans, 2012; Light, 2004; Potrac, Brewer, Jones, Armour, & Hoff, 2000; Schroeder, 2014). This should be understood in combination with the results of the second study which found that player perceptions of direct pedagogical delivery are bound to expectations of the use of negative reinforcement techniques. In contrast more non-linear pedagogic delivery styles are player centric and concentrate on developing decision making by contextualising learning within game-like scenarios as opposed to the rote like learning of technique (Cassidy et al, 2009; Jones et al, 2004; Light, 2004). The intention is to create independent players empowered to make their own decisions. Players who can take to the pitch without looking to the coach on the side-lines for instructions or to help out with decision making (Chow et al, 2016; Light, 2004). An example from the first study of the assistant coach's interactions with the goalkeepers on the pitch with PA delivered on a mobile

device illustrates what this currently looks like at the club and hints at the possibility of future directions.

PA can be used within this type of nonlinear coaching pedagogy as part of a player empowerment process. It allows the players to learn *from* the game in preparation *for* the game (Croad & Vinson, 2018; Evans, 2012). From this perspective it is insufficient to evaluate the effectiveness of PA from the moment the coach has finished delivering feedback to the overall performance outcome, without a deeper understanding of the impact of its perceived usefulness by the players (Groom & Cushion, 2005).

Peer to peer PA delivery styles have the potential to be more even more empowering for players as the placing of responsibility for educating each other builds both team efficacy and increases self-efficacy (Alvarez-Bell et al, 2017; Croad & Vinson, 2018; Johnson & Johnson, 1985; Johnson et al., 1991). Self-efficacy is the knowledge that one can achieve something as opposed to self confidence which is the belief that one can achieve something (Bandura, 1997). Future research should investigate adapting the Team-Based-Learning model that has been succesfully used in tertiary education for peer-to-peer learning into coaching pedagogy in order to facilitate cognitive restructuring of problems and the development of high order thinking (Alvarez-Bell et al, 2017; Johnson et al, 1991; Johnson et al, 1981). Of particular value can be the investigation into the implementation of peer-to-peer led games-within-the-game for enhanced player learning.

Chapter 7. Strengths and weakness of studies, future recommendations and conclusions

The strength of this thesis is that it provides qualitative data from different perspectives within the same football club. The qualitative content analysis is of the general inductive approach and it should be noted that the induction and iteration is conducted by an active participant in the observed body. This can be considered a strength of the research as this provided depth and context that might be unobservable to a passive observer. However there is also a corresponding weakness to the same approach. Factors that could have emerged to an impartial observer could therefore have been missed, or factors that were subsequently merged could have remained separated after discussion with a secondary coder. As this did not occur, it is accepted that themes and categories that did not emerge or appear relevant to the coder, could still be in the data and emerge should subsequent researchers seek to reproduce the results.

While stakeholder checks are in place through the research (Thomas, 2006), the importance given to clarifying this work by the participants will not match the importance given to it by the researcher. Similarly while data from the players' focus group is of value, four of the five players elected to attend (the fifth arriving after accidently meeting the others). By definition these should be considered the four most engaged players in the team with PA. The identity of the fifth player, who did not intend to attend is unknown. The activities of the study supervisor in deidentifying the focus group players was so successful it is not known which respondent she was. Follow up semi-structured interviews with this particular player would have been useful to follow lines of questioning on what why they did not engage with PA.

The question posed to all participant observers is that of the effect that the role of researcher impacts on the results of the study. In the illustrated case of the analyst making

pedagogical interventions with a senior player, the success or failure of this might have been a result of participant observation interference, the removal of social capital and the subsequent loss of perceived efficacy. However, it might also be merely negativity on the part of the player, associated with feelings around the red card. The question that remains unanswered in this case is would the observer have followed the same path if they were not conducting research, would they have instead erred on the side of caution?

Critical friends are approached within this study. The concept was explained and there was verbal agreement that the role would be attempted. The three critical friends were the thesis' secondary supervisor, Peter, the head coach of the Men's team, and Karl, a senior player from the Men's team. The dynamics of this critical friend network worked well until strains from the pedagogic intervention as analyst impacted the relationship with Karl and subsequently on the perceived efficacy of the analyst from Peter's perspective. The end point of the data collection coincided with the change in the friendship dynamic. Human relationships are hard to maintain and friendships are still harder to define. As critical friend is a compound phrase, care should be taken to ensure that there is a balance between criticism and friendship. Implications drawn from the critical friendship relationships in this study are that too much friendship does not challenge the researcher, and too much criticism can negatively impact the research.

Conclusion

Player engagement is chosen as a research question for this thesis as it is a valuable measurement of player qualitative learning. Qualitative content analysis methodology is able to identify observable factors influencing player engagement with PA, from three separate studies within one New Zealand national league football club over one season. This research represents an authentic account of practice to add depth and further illumination to a small, but growing canon of qualitative research on PA in football. The qualitative content analysis

results shows that from the perspective of the assistant coach/analyst the influencing factors of player engagement are the delivery styles, of which four were identified each with differing levels of player engagement. Data gathered from transcripts from a players' focus group shows two factors influencing player engagement. The first is player expectations which has two sub-factors; player expectations of negative reinforcement associated with a formal group delivery and their expectations of consistency of support from the institution. The second factor is player preferences, which has three sub factors showing that players engage well with good aesthetic presentations, the opportunity to engage in peer to peer evaluations, and with the opportunity to self-reflect on clips featuring their own individual actions. The qualitative content analysis of focus group transcripts of the club's head coaches reveals that the factor that influences player engagement with PA from their perspective is a concise message.

By adopting an approach using three studies this thesis offers a holistic understanding of the factors influencing player engagement with PA within a New Zealand national league football club. As engagement is understood to be the quality of an athlete's effort afforded to their own learning (Kuh, 2000), the perspective of an assistant coach/analyst illuminates the influence on player engagement with the pedagogic delivery style of PA. As the receivers of pedagogic delivery, the perspective of the players reveals the influence of their expectations and preferences on their engagement with PA. As the head of a hierarchical structure and guardians of the club's football philosophy, head coaches can be understood to consider that anything that allows for the free flow of concise information, influences player engagement with PA. For head coaches PA is considered a technical or tactical tool for delivery of their message to their players. This qualitative research, along with other similar research on player engagement with PA in other clubs, adds to the PA in football canon across grades, leagues, nations and over time. A deeper understanding of the qualitative nature of player

engagement with PA allows for the development of coaching and PA pedagogies that enhances and improve football players learning to meet the increasing cognitive demands of an ever-increasingly high paced game.

References

Adams, T. E., Holman Jones, S., & Ellis, C. (2015). *Autoethnology: Understanding Qualitative Research.* New York: Oxford university Press.

Alvarez-Bell, R. M., Wirtz, D., & Bian, H. (2017). Identifying Keys to Success in Innovative Teaching:Student Engagement and Instructional Practices asPredictors of Student Learning in a Course Using a Team-Based Learning Approach. *Teaching and Learnin Inquiry*.

Baker, D., & Heaney , N. (2015). Normative Data for Maximal Aerobic Speed for Field Sports Athletes: A Brief Review. *Journal of Australian Strength and Conditioning* , 60-67.

Bandura, A. (1997). *Self Efficacy: The Exercise of Control.* MacMillan.

Bates, D. K. (2018). Flipped Classroom in an Orthopaedic Assessment Course: Studentd Perspective. *Athletic Training Education Journal*, 324-331.

BBC Sport Football. (2004, September 20). Retrieved from bbc.co.uk: http://news.bbc.co.uk/sport2/hi/football/3674210.stm

Beasley, J. G., Gist, C. D., & Imbeau, M. B. (2014). (De)constructing Student Engagement for Pre-Service Teacher Learning. *Issues in Teacher Education*, 175-188.

Beyzac, J. L., Umucu, E., Wu, J.-R., Lee, B., Chen, X., Iwanaga, K., . . . Chan, F. (2018). Strategies for recruiting, engaging and retaining members in a community of practice for disability employment: A qualitative content analysis. *Journal of Rehabilitation*, 40-47.

Blackett, A. D., Evans, A. B., & Piggot, D. (2018). Active and Passive Coach Pathways: Elite Athlete Entry Routes into High Performance Coaching Roles. *International Sport Coaching Journal*, 213-226.

Bochner, A. P. (2002). Perspectives on inquiry III: The moral of stories. In M. L. Knapp, & A. J. Daly, *Handbook of interpersonal communication* (pp. 73-101). Thousand Oaks, CA: Sage.

Booroff, M., Nelson, L., & Potrac, P. (2016). A coach's political use of video-based feedback: a case study in elite-level academy soccer. *Journal of Sports Sciences,*, 116–124,.

Bourdieu, P. (1972). *Outline of a Theory of Practice.* New York: Press syndicate of the University of Cambridge.

Brown, G., & Potrac, P. (2009). You've not made the grade, son: deselection and identity disruption in elite level youth football. *Soccer & Society*, 143-159.

Bunker, D., & Thorpe, R. (1982). A model for the teaching of games in secondary school. *Bulletin of Physical Education*, 9-16.

Butterworth, A. D., & Turner, D. J. (2014). Becoming a performance analyst:autoethnographic reflections on agency and facilitated transformational growth. *Reflective Practice.*

Carling , C., Wright, C., Nelson, L. J., & Bradley, P. S. (2013). Comment on 'Performance analysis in football: A critical review and implications for future research'. *Journal of Sports Sciences*, 2–7.

Carling, C., Williams, M. A., & Reilly, T. (2007). *Handbook of soccer match analysis.* London: Routledge.

Cassidy, T., & Kidman, L. (2010). Initiating a national coaching curriculum: a paradigmatic shift? *Physical Education and Sport Pedagogy*, 307-322.

Cassidy, T., Jones, R., & Potrac, P. (2009). *Understanding Sports Coaching.* Oxon: Routledge.

Charmaz, K., Thornberg, R., & Keane, E. (2018). Evolving Grounded Theory and Social Justice Inquiry. In N. K. Denzin, & Y. S. Lincoln, *The SAGE handbook of qualitative reseearch* (pp. 411-443). Thousand Oaks: SAGE.

Cho, J. Y., & Lee, E.-H. (2014). Reducing Confusion about Grounded Theory and Qualitative Content Analysis: Similarities and Diffrences. *The Qualitative Report*, 8-11.

Chow, J. Y., Davids, K., Button, C., & Renshaw, I. (2016). *Nonlinear pedagogy in skills acquisition: an introduction.* Abingdon: Routledge.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 95-120.

Cook, C. J., & Beavan, C. M. (2013). Individual perception of recovery is related to subsequent sprint performance. *British Journal of Sports Medicine*, 705–709.

Costa, A., & Kallick, B. (1993). Through the Lens of a Critical Friend. *Educational Leadership*, 49-51.

Croad, A., & Vinson, D. (2018). Investigating games-centred pedagogies to enhance athlete decision making in elite coaching contexts. *International Journal of coaching science*, 35-68.

Cushion, C. J., & Jones, R. L. (2006). Power, discourse and symbolic violence in professional youth soccer: The case of Albion Football Club. *Sociology of Sport Journal*, 142 - 161.

Cushion, C. J., Armour, K. M., & Jones, R. L. (2003). Coach education and continuing professional development: Experience and learning to coach. *Quest*, 215 - 230.

Dewey, J. (1997). *How we think: A restatement of the relation of reflective thinking to the educational process.* Lexington MA: Dover Publications.

Drew, M. K., & Finch, C. F. (2016). The Relationship Between Training Load and Injury, Illness and Soreness: A Systematic and Literature Review. *Sports Med*, 861–883.

Drust, B. (2010). Performance analysis research: Meeting the challenge. *Journal of Sports Sciences*, Journal of Sports Sciences,.

Dura-Vila, V. (2010). Why playing beautifully is morally better. In T. Richards, *Soccer and Philosophy: Beautiful thoughts on the beautiful game* (pp. 141-148). Chicago: Open Court.

Duthie, G., Pyne, D., & Hooper, S. (2003). Applied physiology and game analysis of rugby union. *Sports Medicine*, 973– 991. .

Eckel, T. L., Watkins, C. M., Archer, D. C., Wong, M. A., Arevalo, J. A., Lin, A., . . . Brown, L. E. (2017). Bench press and pushup repetitions to failure with equated load. *International Journal of Sports Science*, 647–652.

Ellis, C. (2004). *The ethnographic I: A methodological novel about autoethnography.* Walnut Creek: AltaMira.

Ellis, C., Adams, T. E., & Bochner, A. P. (2011, January). *Forum: Qualitative Social Research*. Retrieved from Autoethnography: An Overview: http://www.qualitative-research.net/index.php/fqs/article/view/1589/3095

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative Content Analysis: A Focus on Trustworthiness. *SAGE Open*, 1-10.

Ely, R., Ainley, M., & Pearce, J. (2013). More than enjoyment: Identifying the positive affect component of interest that supports student engagement and achievement. *Middle Grades Research Journal*, 13-32.

Ettorre, E. (2013). Drug User Researchers as Autoethnographers: “Doing Reflexivity" with Women Drug Users. *Substance Use & Misuse*, 1377-1385.

Evans, J. R. (2012). Elite Rugby Union Coaches; Interpretation and Use of Game Sense in New Zealand. *Asian Journal of Exercise & Sports Science*, 85-97.

Falcous, M., & McLeod, C. (2012). Anyone for Tennis? Sport, Class and Status in New Zealand. *New Zealamnd Sociology*, 13-30.

Fetterman, D. M. (2010). *Ethnography.* Thousand Oaks: Sage Publications.

Field , J. (2003). *Social Capital.* London: Routledge.

Galvan, H., Fyall, G., & Culpan, I. (2012). High Performance cricket coaches' perceptions of an educationally informed coach education programme. *Asia-Pacific Journal of Health, Sport and Physical Education*, 123-140.

Glaser, B., & Strauss, A. (1968). *Time for Dying.* Chicago: Aldine.

Glasser, B. (1992). *Basics of grounded theory analysis.* Mill Valley: Sociology Press.

Glazier, P. S. (2010). Game, Set and Match? Substantive Issues and future directions in performance analysis. *Sports Medicine*, 625-634.

Goldman, A. (1986). *Epistemology and cognition.* Boston: Harvard University Press.

Groom , R., Cushion, C., & Nelson, L. (2011). The Delivery of Video-Based Performance Analysis by England Youth Soccer Coaches: Towards a Grounded Theory. *JOURNAL OF APPLIED SPORT PSYCHOLOGY,*, 16–32.

Groom, R., & Cushion, C. (2005). Using of Video Based Coaching With Players: A Case Study. *International Journal of Performance Analysis in Sport*.

Groves, M. (2011). Resisting the globalization, standarization and rationalization of football: my journey to Bilbao. *Soccer & Society*, 265-278.

Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In N. K. Denzin, & Y. S. Lincoln, *Handbook of qualitative research* (pp. 105-117). Thousand Oaks: Sage.

Halpern, D. (2005). *Social Capital.* Cambridge: Polity Press.

Hartley, D. (2007). Organizational epistemology, education and social theory. *British Journal of Sociology of Eduction*.

Harvey, S. (2009). A study of Interscholastic Soccer Players Perceptions of Learning with Game Sense. *Asian journal of Exercise and Sports Science*, 1-10.

Harwood, C. (2008). Developmental Consulting in a Professional Football Academy: The 5C's Coaching Efficacy Program. *The Sport Psychologist*, 109-133.

Heller, H. (1988). The Advisory Service and Consultancy. In H. Gray, *Management Consultancy in Schools.* London: Cassell.

Hogarth, L. W., Burkett, B. J., & McKean, M. R. (2016). Match demands of professional rugby football codes: A review from 2008 to 2015. *International Journal of Sports Science & Coaching*, 451–463.

Høigaard, R., Haugen, T., & Johansen, B. T. (2017). Team identity in youth soccer: The role of coaches feedback patterns and use of humour. *International Journal of Sports Science and Coaching*, 697-707.

Holman Jones, S. (2005). Autoethnography: Making the personal political. In N. K. Denzin, & Y. S. Lincoln, *Handbook of qualitative research* (pp. 763-791). Thousand Oaks: Sage.

Horrocks, D. E., McKenna, J., Whitehead, A. E., Taylor, P. J., Morley, A. M., & Lawrence, I. (2016). Preparation, structured deliberate practice and decision making in elite level football: The case study of Gary Neville (Manchester United FC and England). *Sports Science and Coaching*, 673-682.

Hu, S., & Kuh, G. D. (2002). Being (Dis)engaged In educationally Purposeful Activities:The Influences Of Student And Institutional Charactarisitcs. *Research in Higher Education*, 555-575.

Hughes, M. (2015). An overview of the development of notational analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 54-87). Oxon: Routledge.

Hughes, M. (2015). Analysis of notation data: reliability. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 169-179). Oxon: Routledge.

Hughes, M. (2015). Examples of notation systems. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 135-168). Oxon: Routledge.

Hughes, M. (2015). How do we design simple systems? How to develop a notational system. In M. Hughes, *Essentials of Performance Analysis* (pp. 124-132). Oxon: Routledge.

Hughes, M. (2015). Sports Analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 113-123). Oxon: Routledge.

Hughes, M. D., & Bartlett, R. M. (2015). The use of performance indicators in performance analysis. In H. Mike , & I. Franks, *Essentials of Performance Analysis* (pp. 89-112). Oxon: Routledge.

Hughes, M. D., & Bartlett, R. M. (2015). The use of performance indicators in performance analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 89-112). Oxon: Routledge.

Hughes, M., & Bartlett, R. (2015). What is Performance Analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 18-28). Oxon: Routledge.

Hughes, M., & Franks, I. (2005). Analysis of passing sequences, shots and goals in soccer. *Journal of Sports Sciences*, 509 – 514.

Hughes, M., & Franks, I. M. (2015). *Essentials of Performance Analysis in Sport 2nd Edition.* Oxon: Routledge.

Iacono, J., Brown, A., & Holtham, C. (2009). Research Methods - a Case Example of Participant Observation. *Electronic Journal of Business Research Methods*, 39-46.

Johnson, D. W., & Johnson, R. (1985). Classroom conflict: Controversy versus debate in learning groups. *American Educational Research Journal*, 237-256.

Johnson, D. W., Johnson, R., & Smith, K. A. (1991). *Cooperative learning: Increasing college faculty instructional productivity.* WAshington DC: The George Washington University, School of Education and Human Development,.

Johnson, D. W., Maruyama, G., Johnson, R., Nelson, D., & Skon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. *Psychological Bulletin*, 47-62.

Johnston, R. D., Gabbett, T. J., & Jenkins, D. G. (2015). Influence of Number of Contact Efforts on Running Performance During Game-Based Activities. *International Journal of Sports Physiology and Performance*, 740 -745.

Jones, L., Evans, L., & Mullen, R. (2007). Multiple Roles in Applied Setting: Trainee sport Psychologist, Coach and Researcher. *The Sport Psychologist*, 210-226.

Jones, R. (2009). Coaching as caring (the smiling gallery)" accessing hidden knowledge. *Physical Education and Sport Pedagogy*, 377-390.

Jones, R., Armour, K., & Potrac, P. (2004). *Sports Coaching Cultures.* New York: Routledge.

Jones, S. H., Adams, T. E., & Ellis, C. (2013). *Handbook of Autoethnography.* New York: Routledge.

Kamberelis, G., Dimitriadis, G., & Welker, A. (2018). Focus Group Research and/in figured worlds. In N. K. Denzin, & Y. S. Lincoln, *SAGE Handbook of Qualitative Research* (pp. 692-716). Los Angeles: SAGE publications.

Knowles, Z., & Gilbourne, D. (2010). Aspiration, Inspiration and Illustration: Initiating Debate on Reflective Practice Writing. *The Sport Psychologist*, 504-520.

Knowles, Z., Katz, J., & Gilbourne, D. (2012). Reflective Practice within Elite Consultancy: Diary Extracts and Further Discussion on a Personal and Elusive Process. *The Sport Psychologist*, 454-469.

Kovacs, L., & Corrie, S. (2017). Building reflective vapability to enhance coaching practice. *The Coaching Psychologist*, 1-12.

Krause, K. L. (2005). Engaged, inert or otherwise occupied? Deconstructing the twenty-first century undergraduate student. *Keynote Paper at the Sharing Scholarship in Learning and Teaching: Engaging Students Symposium,.* Townsville, QLD.

Krause, K. L., & Coates, H. (2008). Students' engagement in first-year university. *Assessment and Evaluation in Higher Education*, 493-505.

Krippendorf, K. (1989). Content Analysis. In E. Barnouw, G. Gerbner, W. Schramm, T. I. Worth , & L. Gross, *International encyclopedia of communication* (pp. 403-407). New York: Oxford University Press.

Kuh, G. D. (2000). In M. J. Barr, & M. Desler, *Understanding Campus Enviroments* (pp. 50-72). San Francisco: Jossey-Bass.

Kuh, G. D., Hu, S., & Vesper, N. (2000). They shall be known by what they do: An activities-based typology of college students. *J. Coll. Stud. Dev.*, 228–244.

Lago, C. (2009). The influence of match location, quality of opposition, and match status on possession strategies in professional association football. *Journal of Sports Sciences*, 1463-1469.

LaPointe, K. (2010). Narrating career, positioning identity: Career identity as a narrative practice. *Journal of Vocational Behavior*, 1-9.

Larsen, O. (2001). Charles Reep: A major Influence on British and Norwegian Football. *Soccer and Society*, 58 - 78.

Lees, A., & Robinson, M. (2015). Qualitative biomechanical analysis of technique. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 180-197). Oxon: Routledge.

Liebermann, D. G., & Franks, I. M. (2015). Video based technologies, substitution of reality and performance feedback. In H. Mike , & I. M. Franks, *Essentials of Performance Analysis* (pp. 44-53). Oxon: Routledge.

Light, R. (2004). Coaches' experiences of Game Sense: opportunities and challenges. *Physical Education and Sport Pedagogy*, 115-131.

Lindblom, H., Carlfjord, S., & Hagglund, M. (2018). Adoption of use of an injury prevention exercise program in female football: A qualitative study among coaches. *Scand J Med Sci Sports*, 1295-1303.

MacDonald, C. (2012). Understanding Participatory Action Research: A Qualitative Research Methodology Option. *Canadian Journal of Action Research*, 34-50.

MacKenzie, R., & Cushion, C. (2013). Performance analysis in football: A critical review and implications for future research. *Journal of Sports Sciences*, 639–.

Maitland, A., & Gervis, M. (2010). Goal-setting in youth football. Are coaches missing an opportunity. *Physical Education and Sport Pedagogy*, 323-343.

Manley, A. J., Greenlees, I. A., Smith, M. J., Batten, J., & Birch, P. D. (2014). The influence of coach reputation on the behavioural responses of male soccer players. *Scandinavian Journal of Medicine & Science in Sports*, 111-120.

Markula, P. (2019). What is New About New Materialism for Sport Sociology? What is New About New Materialism for Sport Sociology? *Sociology of Sport Journal*, 1-11.

McGarry, T. (2015). Probablitity analysis of notated events in sports contests: skill and chance. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 224-238). Oxon: Routledge.

McKenna, M., Cowan, D. T., Stevenson, D., & Baker, J. S. (2018). Neophyte experiences of football match analysis: a multiple case study approach. *Research In Sports Medicine*.

McLean, S., Salmon, P., Goman, A. D., & Read, G. J. (2017). What's in a game? A systems approach to enhancing performance analysis in football. *Plos One*.

Middlemas, S. G., Croft, H. G., & Watson, F. (2018). Behind closed doors: The role of debriefing and feedback in a professional rugby team. *International Journal of Sports Science*, 201–212.

Middlemas, S., & Harwood, C. (2018). No Place to Hide: Football Players' and Coaches Perceptions of the Psychological Factors Influencing Video Feedback. *Journal of Applied Sports Psychology*, 1533-1571.

Middlemas, S., & Harwood, C. (2019). A Pre-Match Video Self Modelling Intervention in Elite Youth Football. *Journal of Applied Sports Psychology*, 1533-1571.

More, K., & Cameron, E. (2015). Notational analysis of coaching behaviour. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 350-362). Oxon: Routledge.

Morley, D., Morgan, G., & Nicholls, A. R. (2014). Developmental Contexts and Features of Elite Academy Football Players: Coach and Player Perspectives. *International Journal of Sports Science & Coaching*, 217-233.

Nagel, R. (2002). "Reinforcement, Positive and Negative.". In *UXL Encyclopedia of Science* (pp. 1657-1659). UXL.

Neil, R., Bowles, C. R., Fleming, S., & Hanton, S. (2016). The Experience of Competition Stress and Emotions in Cricket. *The Sport Psychologist*, 76-88.

Nelson, L., Potrac, P., & Groom, R. (2011). Receiving video based-feedback in elite ice hockey: a players perspective. *Sport, education and society*, 1-22.

Neuman, L. W. (2000). *Social Research Methods: Qualitative and Quantitiatve Approaches.* USA: Allyn adn BAcon.

Occhino, J., Mallett, C., & Rynne, S. (2013). Dynamic Social Networks in high Performance Coaching. *Physical Education and Sport Pedagogy*, 90-102.

O'Donoghue, P. (2015). *An Introduction to Performance Analysis of Spor.* Oxon: Routledge.

Oxendale, C. L., Twist, C., Daniels, M., & Highton, J. (2016). The Relationship Between Match-Play Characteristics of Elite Rugby League and Indirect Markers of Muscle Damage. *International Journal of Sports Physiology and Performance*, 515 -521.

Peachey, J. W., Bruening, J., Lyras, A., & Cunningham, G. B. (2015). Examining Social Capital Development Among Volunteers of a Multinational Sport-for-Development Even. *Journal of Sport Management*, 27-41.

Perrone, D. (2010). Gender and Sexuality in the Field: A Female Ethnographer's Experience Researching Drug Use in Dance Clubs. *Substance Use & Misuse*, 717-735.

Perrone, D., Helgesen, R. D., & Fischer, R. G. (2013). United States drug prohibition and legal highs: How drug testing may lead cannabis users to Spice. *Drugs: education, prevention and policy*, 216-224.

Philaratou, A. G., & Allen, K. R. (2006). Researching Sensitive Topics through Autoethnographic Means. *The Journal of Men's Studies*, 65-78.

Pollard, R. (2002). Charles Reep (1904± 2002): pioneer of notational and performance analysis in football. *Journal of Sports Sciences*, 853± 855.

Potrac, P., & Jones, R. L. (2009). Micropolitical Workings in Semi-Professional Football. *Sociology of Sport*, 557-577.

Potrac, P., Brewer, C., Jones, R., Armour, K., & Hoff, J. (2000). Towards an Holisitc Understanding of the Coaching Process. *Quest 2000*, 186-199.

Potrac, P., Jones, R. L., & Armour, K. L. (2002). 'It's all about getting respect': The coaching behaviours of an expert English soccer coach. *Sport, Education and Society,*, 183–202.

Redwood-Brown, A. (2015). Systems of measurement in time-motion analysis - a case study of soccer. In M. Hughes, & I. M. Franks, *Esentials of Performance Analysis* (pp. 198-214). Oxon: Routledge.

Richmond, L., Dawson, B., Eastwood, P. R., & Hamilton, D. R. (2004). The effect of interstate travel on sleep patterns of elite Australian Rules footballers. *Journal of Science and Medicine in Sport*, 186–196.

Rorth, M., Tjornhoj-Thomsen, T., Cormie, P., Oliffe, J. L., & Midtgaard, J. (2019). Attitudes and Experiences of Men With Prostate Cancer Risk in the Context of Injuries Related to Community-Based Football - A Qualitative Study. *Journal of Aging and Physical Activity*, 205-212.

Røynesdal, Ø., Toering, T., & Gustafsson, H. (2017). Understanding players transition from youth to senior professional football environments: A coach perspective. *International Journal of Sports Science and Coaching*, 26-37.

Russell, J. S. (2007). *Broad internalism and internal values in sport.* Champaign, IL: Human Kinetics.

Schlechty, P. C. (2002). *Working on the work: An action plan for teachers, principals, and superintendents.* San Francisco: Jossey-Blass.

Schlechty, P. C. (2009). *Leading for learning: How to transform schools into learning organisations.* San Francisco: Jossey-Blass.

Schroeder, P. J. (2014). Changing Team Culture:The Perspectives of Ten Successful Head Coaches. *Journal of Sports Behaviour*, 63-88.

Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What can it mean and why might we do it? *Psychology of Sport and Exercise*, 1-11.

Sparkes, A. (2002). *Telling Tales in sport and physical activity: A qualitative journey.* Champaign, IL: Human Kinetics.

Sparkes, A. C. (2000). Autoethnography and Narratives of Self: Reflections on Criteria in Action. *Sociology of Sport Journal*, 21-43.

Sparkes, A. C. (2007). Making the Case for Poetic Repsresentations: An Example in Action. *The Sport Psychologist*, 170-190.

Sparkes, A. C., & Douglas, K. (2007). Making the Case for Poetic Representations: An Example in Action. *The Sport Psychologist*, 170-190.

Sparkes, A. C., & Partington, S. (2003). Narrative Practice and its Potential Contribution to Sport Pschyhology: The Example of Flow. *The Sport Psychologist*, 292-317.

Strauss, A., & Corbin, J. (1998). *Basic of qualitative research: Techniques and procedure for developing grounded theory.* Thousand Oaks CA: Sage.

Szczepanski, L. (2008). Measuring the effectiveness of strategies and quantifying players performance in football. *International Journal of Performance Analysis in Sport*, 55-66.

Templin, T. J., Sparkes, A., Grant, B., & Schempp, P. (1994). Matching the Self: The Paradoxical Case and Life History of a Late Career Teacher/Coach. *Journal in Teaching in Physical Education*, 274-294.

Tenga, A. P., Holme, I., Ronglan, L. T., & Bahr, R. (2010). Effects of Match Location on Playing Tactics for Goal Scoring in Norwegian Professional Soccer. *Journal of Sport Behavior*, 89-108.

Themen, K. (2016). Female football players in England: examining the emergence of third space narratives. *Soccer and Society*, 433-449.

Thomas, D. (2006). A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*, 237-246.

Torres, C. R. (2012). Furthering Interpretivism'sIntegrity: Bringing together Ethics and Aesthetics. *Journal of the Philosophy of Sport*, 299-319.

Traynor, M. (2014). Focus Group Research. *Nursing Standard*, 44-48.

Tveten, K. M., Arnevik, K., & Jahnsen, R. (2017). Goal-directed physical activities in group rehabilitation and impact on health-related quality of life and participation among young adults with physical disabilities – a qualitative study. *European Journal of Physiotherapy*, 131-136.

Vinson, D., Brady, A., Moreland, B., & Judge, N. (2016). Exploring coach behaviours, session contexts and key stakeholder perceptins of non-linear coaching in youth sport. *International journal of Sports Science and Coaching*, 54-68.

Watson, N., Durbach, I., Hendricks, S., & Stewart, T. (2017). On the validity of team performance indicators in rugby unio. *International Journal of Performance Analysis in Sport*, 609-621.

Wheelock, P. (2019, October 12). Unseen influence of James Milner and Liverpool's contract stance. *Liverpool Echo*. Liverpool, Merseyside, UK: Trinity Mirror.

Winand, M., Belot, M., Merten, S., & Kolyperas, D. (2019). International Sport Federations' Social Media Communication: A Content Analysis of FIFA's Twitter Account. *International Journal of Sport Communication*, 209-233.

Wood, K., Patterson, C., Katikiredddi, S. V., & Hilton, S. (2013). Harms to 'others' from alcohol consumption in the minimum unit pricing policy debate: a qualitative content analysis of UK newspapers (2005-12). *Addiction*, 578-584.

Woodman, T., & Hardy, L. (2003). The relative impact of cognitive anxiety and self-confidence upon sport performance: a meta-analysis. *Journal of Sports Sciences*, 443–457.

Wright, C., Atkins, S., & Jones, B. (2012). An analysis of elite coaches' engagement with performance analysis services (match, notational analysis and technique analysis). *International Journal of Performance Analysis in Sport*, 436-451.

Wright, C., Atkins, S., Jones, B., & Todd, J. (2013). The role of performance analysts within the coaching process: Performance Analysts Survey ‘The role of performance analysts in elite football club settings.’ . *International Journal of Performance Analysis in Sport* , 240-261.

Wright, C., Carling, C., & Collins, D. (2014). The wider context of performance analysis and it application in the football coaching process. *International Journal of Performance Analysis in Sport*, 709-733.

Wright, C., Carling, C., Lawlor, C., & Collins, D. (2016). Elite football player engagement with performance analysis. *Journal of Performance Analysis in Sport*, 1007 - 1032.

Zemski, A. J., Slater, G. J., & Broad, E. M. (2015). Body composition characteristics of elite Australian rugby union athletes according to playing position and ethnicity. *Journal of Sports Sciences*, 970–978.

Zepke, N., Leach, L., & Butler, P. (2014). Student engagement: student's and teacher's perceptions. *Higher education research and development*, 386-398.

Appendix A: Paper for submission to International Journal of Performance Analysis in Sports

"Just give us the quick pictures and let's walk out.": Factors influencing player engagement with Performance Analysis in a New Zealand National League Football Club.

S. Moffatt *§, C. Ramsey † and S. Middlemas ‡

* Institute of Sport & Adventure, Otago Polytechnic, Forth Street, Private Bag 1910, Dunedin 9054, New Zealand

† Institute of Sport & Adventure, Otago Polytechnic, Forth Street, Private Bag 1910, Dunedin 9054, New Zealand

‡ Institute of Sport & Adventure, Otago Polytechnic, Forth Street, Private Bag 1910, Dunedin 9054, New Zealand §Author for correspondence.

Email: codi.ramsey@op.ac.nz

"Just give us the quick pictures and let's walk out.": Factors influencing player engagement with Performance Analysis in a New Zealand National League Football Club.

Performance Analysis has been considered to be part of the practice of coaching for some time now. Coaching pedagogy has seen a general shift away from direct, linear delivery styles to more athlete centred nonlinear approaches to athlete learning. This shift is gradual and requires management from coaches, who may also find use for linear pedagogy according to situations and contexts. Corresponding research in the education literature has shown that identifying learner engagement is an effective measurement of pedagogy for teachers. This paper identifies factors influencing player engagement with Performance Analysis in a New Zealand national league football club. This approach used qualitative content analysis of the general inductive approach to code behaviour associated with player engagement from the autoethnographic reflective diary of an assistant coach/analyst. This was combined with qualitative content analysis of the transcripts of a players' focus group on video feedback and the transcripts of a coaches' focus group on the same subject to create a holistic insight into the factors influencing player engagement within the club from the stakeholders.

Keywords: Football Performance-Analysis, Player-Engagement, Qualitative, Pedagogy, Delivery Style,

Introduction

The difference between 'perception of' and 'engagement with' Performance Analysis (PA) is an important distinction for PA pedagogues. Since pedagogy concerns itself with learning (Cassidy, Jones, & Potrac, 2009), studying player engagement is a qualitative measurement of the effort learners apply to their own learning (Kuh, 2000). Measuring the impact of the quality of learning can in turn allow coaches to modify their pedagogic behaviour for more effective delivery of PA, with the aim of increased performance outcomes (Carling , Wright, Nelson, & Bradley, 2013; Cassidy, Jones, & Potrac, 2009; Evans, 2012; Groom & Cushion, 2005; Harwood, 2008; Light, 2004; MacKenzie & Cushion, 2013; McKenna, Cowan, Stevenson, & Baker, 2018; Wright, Carling, Lawlor, & Collins, 2016).

Recent literature in the PA in football canon has called for further qualitative research into the pedagogy underpinning PA delivery (Carling et al, 2013; MacKenzie & Cushion, 2013). Authors have called for a deeper understanding of the pedagogical process underpinning how PA is for used in applied practice (MacKenzie & Cushion, 2013). Consequently there have been qualitative studies on player perceptions of PA (Groom & Cushion, 2005; Middlemas & Harwood, 2018), the micro-political uses of PA by coaches in the youth development stage (Booroff, Nelson, & Potrac, 2016), the effects of club structure on the ability of newly appointed analysts to gain trust, respect and efficacy within their clubs (McKenna, Cowan, Stevenson, & Baker, 2018) and the use of individual clips for player reflection and self-modelling of behaviour (Middlemas & Harwood, 2019).

A two phase methodology study, by Wright et al (2016) demonstrates that the emotions of players negatively impact their engagement with PA if feedback occurs before 48 hours after a match. The research finds some players engage well with the opportunity to reflect with video clips on their own, but others felt they required guidance of their analysis.

Player's reported they engage with the opportunity to feedback sessions where they were allowed to freely ask questions and engage in three-way dialogue (Wright et al, 2016).

The similarity between coaching pedagogy and teaching pedagogy indicates that a review of the latest literature on student engagement with learning in the education canon can provide valuable insight to the investigations of player engagement with PA in football. Recent qualitative research in the education canon takes a holistic approach to investigate learner engagement and includes data from the perspectives of teachers as well as students (Zepke, Leach, & Butler, 2014). Similarly, a definition of learner engagement is taken from this canon to mean the quality of effort afforded to learning (Hu & Kuh, 2002; Kuh, 2000; Kuh, Hu, & Vesper, 2000) In the education literature neophyte teachers are encouraged to use reflective diaries to observe the classroom behaviour of their students. Behaviour that indicates low engagement can include starring out of the classroom windows, talking amongst students on non- related subjects and sleepiness (Beasley, Gist, & Imbeau, 2014). As coaching pedagogy moves away from linear, which is coach-centred, towards nonlinear pedagogy, which is athlete centred, it can be seen that the quality of effort afforded to learning is not just the responsibility of the player, but for player engagement to occur, the coach too must be engaged with the learning (Alvarez-Bell, Wirtz, & Bian, 2017) This is the approach taken in this paper, which similarly seeks a holistic understanding of the factors influencing player engagement with PA from the perspectives of an applied PA practitioner (assistant coach/analyst), the players and the head coaches within the same New Zealand national league football club.

Materials and Methods

This study uses a qualitative content analysis of the general inductive approach of three data sources (Thomas, 2006). The first data source is an autoethnographic reflective diary of the lead authors self-practice during the 2018/19 New Zealand national league season. The lead authors reflective diary records events and reflections upon self-practice. The lead author held the concurrent roles of assistant coach for the Women's national league team and analyst for the Men's national league team. The second source is the transcripts of a players' focus group and the third source is the transcripts of a coaches' focus group.

Reflective Diary

For this study the reflective diary is from the entirety of the 2018/19 football season. Entries are made as soon as possible after the occurrence of an event deemed worthy of recording. The diary is written onto a Google doc which is kept on a Google drive, a commonly used cloud-based storage system This means that entries into the diary are written using multiple devices and was portable to multiple locations. Often the diary is written into while travelling to away games, on planes or on buses. The reflective diary does not contain verbatim quotes but conversations as remembered by the author and are recorded as dialogues recreated through the authors mind for exploration and investigation (Kovacs & Corrie, 2017; Sparkes A. , 2002). In this respect the voices represent those of the actors as perceived through the authors *reflexion* (Butterworth & Turner, 2014; Knowles & Gilbourne, 2010; Perrone, 2010; Sparkes A. C., 2000) and the intention is this be held as the lived truth of the authors experience (Sparkes A. , 2002).

Ethics

This project was reviewed and approved by the Otago Polytechnic Research Ethics Committee in consultation with the Kaitohutohu Office. Prior to the commencement of the

study, before each PA delivery session and throughout the study, the players and staff were informed the assistant coach/analyst was conducting research. This was to ensure informed consent was obtained from the ethnographic participants as approved by the Otago Polytechnic Research Ethics Committee. In accordance with Ellis (2007) informed consent is supported by process consent, to ensure that the integrity of the qualitative research is that of best practice. Process consent requireds the autoethnographic researcher to continually check in with the participants to ensure that participants are still happy to take part and that there is an understanding of the research process, the reason for the study, their rights and responsibilities and their rights to withdraw from the study

Participants

The autoethnographic participant in this study is the assistant coach for the Women's team and the analysts for the Men's team, as both roles were held separately but concurrently The ethnographic participants whose actions are recorded in the reflective diary are the players of the ISPS Handas New Zealand Men's National League (n=24) and the New Zealand National Women's League (n=22) teams during the 2018/19 season. Additionally, the coaching staff for each team (n=2, men's team and n=2, women's team) are included in the reflective diary.

The participants in the reflective diary are anonymised by using the replace function in Google docs to change the names throughout the whole document. Replacement names are taken from a list that bore no resemblance to any names of the participants and randomly applied. An iterative process of re-reading the reflective diary occurrs to ensure that similar names are not allocated. Further iteration leads to anonymising teams and locations to avoid implied identification of participants.

Focus groups

Focus groups are chosen as a qualitative method of inquiry in this study as they are unique in qualitative research having the ability to promote interactions and responses from multiple sources (Traynor, 2014). Focus groups allow conversations to be captured between participants as they explain their reality, refining and expanding on the meanings of the subject matter (Traynor, 2014). This allows for the development of multiple emic and etic discourses (Elo, et al., 2014). Focus group conversations may also uncover deeper understanding through group responses, not available in one-on-one interviewing (Traynor, 2014)

Participants

Players focus group. The players are selected from the teams by the study secondary supervisor who does not know any of the players and randomly invites the players to allow for the process of deidentification. This process means that the identities are kept from the lead researcher, as the lead researcher is the Women's team's assistant coach and the Men's team analyst. Deidentification, is a process that allows the respondents to *never* identify themselves. This is different from anonymisation in which respondents are identified, then have their identities changed. It was felt that the players would feel more willing to talk openly and without fear of repercussion if they are deidentified as opposed to anonymised.

10 players are invited from each of the Men's and Women's squads to attend separate meetings. Five players from the Women's team responded (n=5 Women's team) and one from the Men's team (n= 1 Men's team). Because the teams receive different delivery styles from different coaches, it is decided not to include the Men's team player in the focus group, which results in the focus group comprising Women's team (n=5) only.

Coaches focus group. The participants are, the male head coach of the Men's team (n=1 Men's team) and the male head coach of the Women's team (n=1 Women's team).

Qualitative content analysis

This research uses qualitative content analysis methodology (Cho & Lee, 2014), of the general inductive approach (Thomas, 2006). Qualitative content analysis of a general inductive approach allows open coding to categorise the how, what and why of different data sources (Cho & Lee, 2014). Qualitative content analysis starts after data collection is complete and does *not* propose building theories or finding the relationships between categories (Cho & Lee, 2014; Elo, et al., 2014). This is considered by qualitative researchers as an important distinction between the general inductive approach and grounded theory (Cho & Lee, 2014)

Open coding

Microsoft Word version 10 is used for the open coding. This is conducted by copying the reflective diary and deleting all entries not relating to the theme of player engagement with PA. The same process is used on copies of the players and coaches focus group transcripts. A thematic search of the new copies for all references to moments relating to video analysis and observed player behaviour is carried out on all three sources. A secondary search of the original Word documents ensures that no entries are incorrectly deleted. A process of iteration occurs and definitions of behaviour according to the theme are widened (Thomas, 2006). This process proves that saturation is achieved as no new entries are included in the new Word document (Glasser, 1992; Guba & Lincoln, 1994; Thomas, 2006). The document highlight function within Microsoft Word is used for colour coding of the emerging themes (Cho & Lee, 2014; Glasser, 1992). This coding reveals emerging sub-themes. An iterative process allows the grouping of similar codes into thematic alignment until saturation is

achieved and no further sub-themes emerge (Elo, et al., 2014;Thomas, 2006). With the emerged themes, and sub-themes the qualitative content analysis methodology allows these to be grouped together to create categories. Further iteration provids sub-categories in some cases and saturation in the case of others. This iterative process carries on until saturation is achieved across all categories and sub-categories (Elo, et al., 2014; Glasser, 1992; Guba & Lincoln, 1994).

Results

Reflective diary

The qualitative content analysis of the reflective diary of the assistant coach/analyst indicates that the PA delivery styles are the factors that influenced observable behaviour. The delivery styles emerge from the open coding process of the qualitative content analysis as a combination of the two sub-themes and two categories coded within the theme of player engagement. The two sub-themes are identified and labelled as Group and Individual delivery models. The two categories are identified and labelled as Formal and Informal pedagogy, which corresponds to the linear and nonlinear pedagogic styles. This combination gives four delivery styles, Group Formal, Group Informal, Individual Formal and Individual Informal. (Figure 1 near here) Each delivery style influences observable behaviour indicating player engagement to different degrees.

Group Formal

This is a combination of the Group Delivery Model with Formal Pedagogy. This type of delivery style is typically delivered to a group of players by a head coach or occasionally an assistant coach. The delivery style often takes place in a room away from the pitch, with the players seated in front of a screen. The formal pedagogy emphasises the coach's position of dominance in the coach-athlete power dialectic and creates a teaching-centred environment. Players are encouraged to ask questions at the end of the feedback session and not encouraged to initiate free dialogue.

The behaviour that is observed in the reflective diary indicates low levels of engagement, with players looking out of windows and talking to each other. Passive nodding in agreement with one-way dialogue is witnessed and this is considered indicative of neutral

engagement, the players are neither engaged nor entirely disengaged with the delivery. (Figure 2 near here)

The following passage is an example from the reflective diary of a Group Formal delivery style feedback session.

> The Regional Federation have just taken over the lease of the office from the local Super 16 Rugby side. The "Bull Pen', where the regional federations Football Development Officers have their desks, is long and narrow with windows on one side looking out onto the Super 16's training pitch and the beyond, down a tree lined avenue, to the rugby stadium.
>
> Out the window rugby club support staff carry tackle bags into position and post-graduate interns set up camera's and attach Go-Pros onto poles.
>
> The pristine facilities where the rugby players are whooping and growling as they warm up stand in stark contrast to the area dedicated to the NWL team, which is across the road and earmarked for demolition for immediate upgrade to a turf.
>
> But the Regional Federation is grateful it's managed to get the lease on this office space and one of the reasons is that it has been designed for the back wall to be dedicated to presentations, with a ceiling mounted projector.
>
> Players arrive in ones and twos. Most are wearing club hoodies from their winter league clubs. We have given out track suit tops, bottoms and polo-shirts for travel and match day as well as two training kits for practises. Dotted around a few players are wearing a combination of training kit, match day kit and some leisure wear.
>
> A few of the players occasionally glance down out of the window and watch the Super 16 rugby team's training, which includes some well-known All Blacks players.

We'd already had start of season team culture meeting where we agreed that Mauricio and I would wherever possible attempt to facilitate learning and wherever possible hand ownership to the players.

I started the meeting then with the statement that this is 'what it could look like, if this works for you or we could develop a different style of delivery to suit you. All depends on what works and what suits our short amount of time together'.

I'm feeling nervous though. I wasn't before the session. What's changed? I have planned the session out, both in terms of the PowerPoint with video links to my desktop and my off script 'checklist' – areas I am happy to talk on if we go there. I notice players looking around, out the window at the rugby training. Some are sitting at the back and staring vacantly at me like they are at the back of a boring geography class. Some are just having quiet conversations together, not looking my way.

"Right, let's get started, video sessions…." I start the session off, my voice loud and punchy as it would be on the pitch.

The first clip showed a critical moment from a game versus Waverton from last year. The winger pressed the centre back, which left the full back free and resulted in out flank being outnumbered 2v1 ending in a goal. The critical moment to be brought to the squad's attention was the initial press of the centre back.

The next clip showed the strengths of the next opposition (Eastern) followed by a clip showing their weaknesses.

"Ok so what we have here is the opposition playing the ball across their defence to switch play. Clara decides now that she's going to put pressure on the centre back with the ball. As she moves across…."

I play the clip down and we can see that a quick counter attack leading to a goal was the immediate result of Clara's action.

Players are looking up at the video and there is gentle nodding in agreement with what I've said. Still are some chatting to each other and a couple more are still staring out of the window.

"Ideally, we'll have 10 minutes in here, go over 2 or 3 clips and then walk over to the pitch and carry this over into our training, any questions?"

Fiona Philips, the captain raises her hand. "So, are we going to do two of these sessions a week? I think one is enough, more than enough maybe…"

Mauricio replies, 'Yeah we will not do them every week, whenever we need to see something, we need to fix together we will do them, maybe some weeks no, maybe some weeks yes'.

Clearly the observed behaviour indicates low levels of engagement from the players. The flow of information is one directional, indeed the only two-way conversation concerns the relevance of the sessions themselves. Mauricio is quick to respond as this is a trial run, Group Formal sessions are adapted to occur immediately before training, in a room close to the pitch and concentrate on a scouting clip of the opposition that relate directly to an element of the training session.

In the old listed building of the Ferndale Stands, I set up my laptop and the Regional Federations portable projector in one of the changing rooms.

Commonly used as an away changing room, the room is small, opposite the showers and although there is the dangling fixture, without lightbulb. Effervescent indoor light not something, of course, that any self-respecting New Dundee football club would deem appropriate for the match day organisation of an away team.

In these circumstances, however, it's the perfect setting for a scouting video session on our next opponents, Waverton.

Some of the players arrive, look confused to see me setting up in the next door changing room and hover around outside, others come in and ask what I'm up to. Once the players change, they eventually drift in and do their boots up while I sort out the lenses on the projector.

Mauricio arrives and announces that everyone who has said they are coming tonight is here.

I have cut 7 or so clips together from Waverton's game against Tai Waka (our next opponents after them) and put title cards in black and white preceding every clip to describe the critical moment before we see it.

I identify the oppositions key players and the players invite the players to take over the conversation, with questions like, '*what do we know about X*?' or '*I've just loads of her getting to the line and cutting back, you were in the same team last year what else has she got?*'

"Yeah she's very fast"

"Don't let her get the ball in there'.

"Are they playing her there, really? Ok."

"Those two, sisters, yeah they're under rated we need to be careful, they'll always look for overlaps'

I bring out a clip on where the goal keeper finds herself while their pressing.

"Wow!"

"Somebodies *got* to have a go if we win it high"

The session was around 20 minutes. The video was then uploaded to Facebook the next day, Saturday. 24 hours before the game.

> Sammy, Pippa and Kiri are all in the starting line-up but missed tonight's VFB session. I told Sammy there was some information in the video that was specific to her position in the press

In the passage above the engagement level is higher than in the first example of the GF delivery style. The session is relatively short at 20 minutes, is before training and is a scouting clip on the weekend's opposition. Two and three-way dialogue is encouraged and questions are open, not leading. However, the absence of the three key players at the session dealt a major blow to the group efficacy of the team. This is a scenario where the players that are the most engaged and informed are the players likely to be starting the game from the bench as substitutes. The absence of the three key players did result in this case with them being dropped from the team. A key concern in the GF delivery style is that most engaged players in the session, might not be the players to whom the PA data is the most relevant. It is not an effective way of engaging targeted players.

Group Informal

This is a combination of the Group Delivery Model with Informal Pedagogy. This type of delivery style is delivered to groups of players, often in team units (i.e. goal keepers, defence, midfield or attack) or in positional relationships with each other (i.e. goal keeper, right back and right winger). This delivery style took place in an ad hoc situation, for example at airports or on buses, or in a planned scenario on the pitch. Clipped video held on cloud hosted websites and played on hand held devices allowed for easy access to PA data.

The delivery style has an informal pedagogy as the sessions are learner centred allowing for the free flow of dialogue between all participants. The coach is facilitating guided learning and does not have an answer in mind for the players to discover. The behaviour that is identified from the qualitative content analysis coding includes the free flow

of dialogue, players helping to guide each other's learning (a cyclical team efficacy response), tactical analysis being offered amongst each other and players from finished tasks freely joining the open session. (figure 3 near here).

The following passage is an example from the reflective diary of a Group Informal delivery style feedback session.

> It's a lovely summers evening in University Park, the NWL training area is not cordoned or gated off and, although the area is booked with the local council, there are still groups playing ultimate frisbee and touch rugby. There are plenty of students milling around, enjoying the sun and the having a laugh together in the final weeks before exams.
>
> Mauricio is running a passing practice, but the players are chatting to each other and not focusing. When the session starts, they are slow to start, and the training takes place at a low tempo.
>
> Eventually the players lift themselves and the session appears from the outside to be back on track but there is a subtle power play at work now.
>
> The goalkeepers are all happy and keen to practice corners.
>
> "Ok, so I've made a video and it's here on my phone if you want to …"
>
> The keepers come over and huddle next to me as we watch the video down.
>
> "So, two hand signals, the thing to remember though, is the runner. She's trying to draw you one step toward the near post. Let her go. Stay where you are and deal with the back post".
>
> "yeah, what about the peno spot one"
>
> I go back to the phone and put the cursor on the time line to the relevant spot and we watch again
>
> "yeah same movement, just delivery to a different spot, ok."

Charli takes some corners and I position myself for the header according to Charli's hand signals. Kiri joins in. I look over, there is a discussion with Mauricio taking place. Kiri has had enough of the dissent.

"Can I do anything?'

"Yeah great, can you (reaches into pocket) can you be this person and make this…. run, please?'

Individual Formal

This is a combination of the Individual Delivery Model with Formal Pedagogy. This type of delivery style takes place with an individual player interacting with a member of the coaching staff, which could be the head coach, assistant coach or the analyst. The formal pedagogy identified that this type of one-on-one occurred within the coach athlete power dialectic. The hegemony of this dialectic was found to be reliant upon the social capital of the head coach. The low status of the analyst and the higher status of senior players within the structure of the club meant that without borrowed social capital of the head coach this delivery style is occasionally difficult to deliver as an analyst.

The behaviour witnessed from the qualitative content analysis of the analyst's reflective diary indicates behaviour associated with engagement, with the analysis, with the process in the interests of team efficacy but also disengaged behaviour (figure 4 near here).

The following passage is an example of an Individual Formal delivery style feedback session.

So, you know I'm doing a critical moment clip from now?'

'Yeah makes sense, we don't have time to all sit down for 20 minutes'

'Right, so I'm trying to dig deep on one moment that turned the game and turn that round and have a clip that says, this is what we did well.'

‘Yup’

‘Well I’ll just give you a little heads up on this one, which was the lead up to the red card which started from an attacking free kick’

‘I’ve already had a look down on my clips that you sent. It’s one of the first things I do. What could I have done differently?’

‘Looks like...did you lose confidence in Ryan and come over and try to sort it out yourself….?’
‘Not really lose confidence in him but I sort of second guessed he wasn’t going to make it’

‘Yeah you can see where you change course and go to the ball…’

‘Yeah I should have kept dropping…’

‘I’ve freeze framed it and shown your body shape, basically now you have got yourself in front of the ball, facing our goal….’

‘Yeah, I thought I could get more power onto that header back than I did…’

‘Yeah at this point you don’t have any other option…. split second stuff’

‘Yeah but I could have done it better’

‘So, this is going out tonight, just so you know what it’s about. We keep getting hit on counter attacks and sometimes it is those split-second decisions about body shape or positioning that cost us…’

‘Yeah, cool. I mean I’ve already gone over this myself but I’m happy for this to go out, so we’re all on the same page…’

Individual Informal

This is a combination of the Individual Delivery Model with Informal Pedagogy. This delivery style takes place with Individual players reflecting on their own with clipped

material. These are clips, uploaded to a cloud-based hosting platform, of the players' own individual actions, unit actions and a clip of the whole previous game and a scouting clip of the next opponent. The lead author, as assistant coach/analyst was given group administrator privileges to view the group web site analytics. This allowed the lead author to view who had seen the clips and when they had seen the clips. Complimentary Power Point information was sent out with the clips for players as a reference, especially for scouting information on opponents. Because the pedagogy was informal, the emphasise was on athlete self-reflection, with coaches available to answer questions. From the analytics it is observed that some players are quick to access the individual clips while a smaller number of other players do not access the clips at all. This indicates a mixture of high levels of engagement for some and a low level of engagement for others (figure 5 near here).

The following paragraph is from a conversation in the reflective diary with a senior player who is asked about the preferences for Individual Informal delivery style feedback.

> Yeah, it's good for me to watch the whole match down. If you're just watching clips it's like, how did we get into this situation? What was I doing off the ball? Was I cutting off the right channel? Did someone show him inside, outside? It's all connected.'

Players' focus group

The qualitative content analysis of the players' focus group transcripts indicated that the factors influencing player engagement with PA from the perspective of the players are the players' expectations and the players' preferences (figure 6 near here). The players' expectations are based on previous experiences of PA. The players' preferences are based on either what they have found engaging in the past or suggested improvements to enhance engagement.

Player expectations

The qualitative content analysis coded two categories within the sub-theme of player expectations. These are labelled negative reinforcement and consistency.

Negative reinforcement. The qualitative content analysis of the transcripts of the players focus group identifies that the players expect the delivery of PA to be in the Group Formal delivery style with connotations of negative reinforcement. This is seen as a necessary component of the Group Formal delivery style as mistakes need to be discussed in the group to ensure team efficacy.

> Player two, 'Some people are going to react quite differently to others. Personally, I won't mind if he's going to tell me, "You did this wrong. This was really bad," but say it to someone else and they might react to it a little bit differently. It's just about knowing the players and knowing who might be okay with, maybe, more negative feedback than others and maybe who'd react to positive feedback.'
>
> Player four, 'I think you also have to be careful with how much you give a player negative feedback, because I usually take my feedback pretty well, but I was one of the players that got a bit roasted in one of our video sessions and I don't think I was thinking about that afterwards…
>
> Player three, 'Well, it makes you feel pretty shit. You walk out of there and you're like, "Well, did I do anything good in that game?"'
>
> Player one, 'I suppose sometimes would you just take away from that group session, just all that negativity instead of focusing on everything else. I suppose sometimes people could just take (away) the really bad stuff, even if a lot of the time you know if you've messed up. Saying that but now say something. You know you've done something bad, so you don't need to harp on about it too much. You're getting stuck into it and you're like, "Yeah. I know."'

> Player three, ’Because I'm sure if you've made a mistake, lots of other people have made it too, and you just happen to be the one that the video was easiest to pull out or whatever.’

Consistency. The players expect consistency in the frequency of delivery. This is partially to mitigate the perceived negative reinforcement that could be delivered by psychologically preparing the players in advance and partially to enable team efficacy in the amateur environment where players aren’t sure if others have reflected on the individual clips.

> Player one, ‘I think consistency is one of the things, because it's one of those things where we're like ... Yeah, knowing we're going to get feedback every week, what kind of feedback we're going to get, so at the start of the week we're going to get feedback about the last game. A few points of what they want to see improved, or good things we did, and then closer to the game, an analysis on the team that (we’re playing next).’

> Player two, ‘Yeah, especially if things just pop up and we're supposed to watch this before then, someone like __ might be like, "Oh my god, I don't have time for that," and then a few people might not be prepared and then everyone else has watched this video that they haven't had time to watch but it's not usually there. It's important as well.’

Player preferences

The qualitative content analysis coding produces three categories within the sub-theme of player preferences. These are labelled ‘aesthetic quality of presentation’, ‘peer to peer analysis’ and ‘individual action clip’.

Aesthetic quality of presentation. The players indicate that the quality of the aesthetic of a presentation enhances the quality of their own efforts afforded to their learning. If the aesthetic of a presentation is not considered to be of a high enough standard it is taken as an indication of lack of engagement from the coaching staff.

> Player three, ’I know this sounds kind of silly, but I quite like the video to be quite pretty I suppose. It comes out with a title, "Okay, this game, so the next three videos are going to be on this," and it tells you this is going be this and then, throughout the videos, it's got, "This is what you're looking at," and then rather than just a mesh of 20 videos put together and you don't really know what you're looking for, I like it quite specific and really clear on what it is.
>
> Player one. ‘Video organization!’
>
> Player five, ’It shows that they've put in the effort so you should put in the effort to watch and pay attention, taking in the things.’

Peer to peer analysis. The Group Informal delivery style has been used with the goal-keepers, and other outfield players joining in the GI session. For some players there is a desire to take this further and develop peer-to-peer pedagogies with the athletes taking full responsibility for their training.

> Player three. ’I think that goalkeepers could easily do that it if they wanted, because often coaches don't even see what goalkeepers want, their back-line and midfielders to do. I think that would be probably a position they could easily deliver a video feedback, how they're stepping up or how they're positioning themselves, maybe the back-liner or something or how far the wingers are coming back in and tackling.’

Individual actions. The qualitative content analysis of the player’s focus group transcripts indicated high levels of engagement with Individual Informal delivery style feedback, for some, but not all players.

> Player three, ‘Time that's after, so post-match, I wouldn't go watch the game by myself because I just don't have time at this point. Stu, I did like when he sent ... I know this would take so much time if he did this after, but when he sends clips of you ...’

> Player one, ‘Your actions?’
>
> Player three, ‘Your actions, yeah. That's helpful, to see what you're doing wrong, and stuff and I would like to watch something like that, but obviously that's really hard to do for each individual player and really time-consuming but that's super helpful just to see what you need to improve on.’
>
> Player two, ‘I didn't even know about this until I got my one a couple of weeks ago and I thought it was really good. It is all your actions, so sometimes it's just a little bit of stuff, but ...

Coaches’ focus group

The qualitative content analysis of the coaches’ focus group transcripts indicates that there is only one sub-theme coded within the theme of player engagement with PA. That theme was concision (figure 7 near here).

Concision

For the head coaches’ the ability to deliver a concise message to their players is the overriding concern above any others. If the delivery style is not allowing a concise message to get through to the players, the coaches are willing to abandon the delivery style, as Peter, the Men’s head coach has done with Group Formal at the start of the season.

> Last year we spent probably 20 to 25 minutes before training going through video. And again, the more senior players were like, "Look, we'd rather just have a quick look and get out and get working on it." Because that's where they see the value. "Just give us the quick pictures and let's walk out." That's where we're at, to be honest. We've totally stripped it back.

For Mauricio, the Women’s team coach, it is a case of adapting the delivery style to the players contexts and circumstances to focus the message on just three or four points.

Some players are keen, and there are others are at least a little annoyed. They are trying to understand, no? So, I think it is each individually. It is very different, but to be honest, in the environment, in the world, it's not that simple to run all the things because they are keen and commit to train. But to train when you start adding more things into training like gym, like video sessions, it's when they are getting tired and they don't want that. So, we have the video(and) training three times, and it’s quite hard to run it properly with three trainings and try to fit the video into those training. So, few times we just did maybe half an hour before, and just focus on three or four things.

Discussion

The results from the three qualitative sources support previous findings that indicate that direct pedagogies fail to engage players as they do not allow as much scope as nonlinear pedagogies for the athletes to be participant learners (Cassidy et al, 2009 ;Croad & Vinson, 2018; Evans, 2012; Light, 2004; Potrac, Brewer, Jones, Armour, & Hoff, 2000; Schroeder, 2014). This should be understood in combination with the results of the qualitative content analysis of the players focus group, which finds that player perceptions of direct pedagogical delivery are bound to expectations of the use of negative reinforcement techniques. In contrast, nonlinear pedagogic delivery styles are player centric and concentrate on developing decision making by contextualising learning within game-like scenarios not the rote like learning of technique (Cassidy et al, 2009; Chow, Davids, Button, & Renshaw, 2016; Jones et al, 2004; Light, 2004). The intention is to create independent players empowered to make their own decisions. Players who can take to the pitch without looking to the coach on the side-lines for instructions or to help-out with decision making (Chow et al, 2016; Light, 2004). An example from the reflective diary of the lead author's interactions with the goalkeepers on the pitch with PA delivered on a mobile device illustrates what this currently looks at the club and hints at the possibility of future directions.

PA can be used within this type of nonlinear coaching pedagogy as part of a player empowerment process. It allows the players to learn *from* the game in preparation *for* the game (Croad & Vinson, 2018; Evans, 2012). From this perspective it is insufficient to evaluate the effectiveness of PA from the moment the coach has finished delivering feedback to the overall performance outcome, without a deeper understanding of the impact of its perceived usefulness by the players (Groom & Cushion, 2005).

Peer to peer PA has the potential to be more even more empowering for players as the placing of responsibility for educating each other builds both team efficacy but also has been

shown to increase self-efficacy (Alvarez-Bell et al, 2017; Croad & Vinson, 2018; Johnson & Johnson, 1985; Johnson et al., 1991). Self-efficacy is the *knowledge* that one can achieve something as opposed to self confidence which is the *belief* that one can achieve something (Bandura, 1997). Future research should investigate adapting the Team-Based-Learning (TBL) model that is succesfully used in tertiary education, into coaching pedagogy to facilitate cognitive restructuring of problems and the development of high order thinking (Alvarez-Bell et al, 2017; Johnson et al1991; Johnsonet al, 1981). Of particular value can be the investigation of the implementation of peer-to-peer led games within the game for enhanced learning (Chow et al, 2016)

Conclusion

The qualitative content analysis results showed that from the perspective of the assistant coach/analyst the influencing factors of player engagement are the delivery styles, of which four are identified, each with differing levels of player engagement. Data gathered from transcripts from a player's focus group showed two factors influencing player engagement. The first was player expectations which has two sub-factors; player expectations of negative reinforcement associated with a formal group delivery and their expectations of consistency of support from the institution. The second factor is player preferences, which has three sub factors showing that players engaged well with good aesthetic presentations, the opportunity to engage in peer to peer evaluations, and with the opportunity to self-reflect on clips featuring their individual actions (although some might require coach guidance or player mentoring). The qualitative content analysis of focus group transcripts of the club's head coaches revealed that the factor influencing player engagement with PA from their perspective was concision.

By adopting an approach using qualitative content analysis of three sources this paper offers a holistic understanding of the factors influencing player engagement with PA within a New Zealand national league football club. As engagement can be understand as the quality of effort afforded to learning (Kuh, 2000), the perspective of an assistant coach/analyst illuminates the cyclical influences of player engagement of the pedagogic delivery style of PA. As the receivers of pedagogic delivery, the perspective of the players reveals the influence of their expectations and preferences on their engagement with PA. As the head of a hierarchical structure and guardians of the club's football philosophy, head coaches can be understood to consider that anything that allows for the free flow of concise information, influences player engagement with PA. For head coaches PA is considered a technical or tactical tool for delivery of their message to their players. This qualitative research, along

with other similar research on player engagement with PA in other clubs, can add to the PA in football canon across grades, leagues, nations and over time. A deeper understanding of the qualitative nature of player engagement with PA, allows for the development of coaching and PA pedagogies that enhance and improve football player learning to meet the increasing cognitive demands of an ever-increasingly high paced game.

References

Adams, T. E., Holman Jones, S., & Ellis, C. (2015). *Autoethnology: Understanding Qualitative Research.* New York: Oxford university Press.

Alvarez-Bell, R. M., Wirtz, D., & Bian, H. (2017). Identifying Keys to Success in Innovative Teaching:Student Engagement and Instructional Practices asPredictors of Student Learning in a Course Using a Team-Based Learning Approach. *Teaching and Learnin Inquiry*.

Baker, D., & Heaney , N. (2015). Normative Data for Maximal Aerobic Speed for Field Sports Athletes: A Brief Review. *Journal of Australian Strength and Conditioning* , 60-67.

Bandura, A. (1997). *Self Efficacy: The Exercise of Control.* MacMillan.

Bates, D. K. (2018). Flipped Classroom in an Orthopaedic Assessment Course: Studentd Perspective. *Athletic Training Education Journal*, 324-331.

BBC Sport Football. (2004, September 20). Retrieved from bbc.co.uk: http://news.bbc.co.uk/sport2/hi/football/3674210.stm

Beasley, J. G., Gist, C. D., & Imbeau, M. B. (2014). (De)constructing Student Engagement for Pre-Service Teacher Learning. *Issues in Teacher Education*, 175-188.

Beyzac, J. L., Umucu, E., Wu, J.-R., Lee, B., Chen, X., Iwanaga, K., . . . Chan, F. (2018). Strategies for recruiting, engaging and retaining members in a community of practice for disability employment: A qualitative content analysis. *Journal of Rehabilitation*, 40-47.

Blackett, A. D., Evans, A. B., & Piggot, D. (2018). Active and Passive Coach Pathways: Elite Athlete Entry Routes into High Performance Coaching Roles. *International Sport Coaching Journal*, 213-226.

Bochner, A. P. (2002). Perspectives on inquiry III: The moral of stories. In M. L. Knapp, & A. J. Daly, *Handbook of interpersonal communication* (pp. 73-101). Thousand Oaks, CA: Sage.

Booroff, M., Nelson, L., & Potrac, P. (2016). A coach's political use of video-based feedback: a case study in elite-level academy soccer. *Journal of Sports Sciences,*, 116–124,.

Bourdieu, P. (1972). *Outline of a Theory of Practice.* New York: Press syndicate of the University of Cambridge.

Brown, G., & Potrac, P. (2009). You've not made the grade, son: deselection and identity disruption in elite level youth football. *Soccer & Society*, 143-159.

Bunker, D., & Thorpe, R. (1982). A model for the teaching of games in secondary school. *Bulletin of Physical Education*, 9-16.

Butterworth, A. D., & Turner, D. J. (2014). Becoming a performance analyst:autoethnographic reflections on agency and facilitated transformational growth. *Reflective Practice.*

Carling , C., Wright, C., Nelson, L. J., & Bradley, P. S. (2013). Comment on 'Performance analysis in football: A critical review and implications for future research'. *Journal of Sports Sciences*, 2–7.

Carling, C., Williams, M. A., & Reilly, T. (2007). *Handbook of soccer match analysis.* London: Routledge.

Cassidy, T., & Kidman, L. (2010). Initiating a national coaching curriculum: a paradigmatic shift? *Physical Education and Sport Pedagogy*, 307-322.

Cassidy, T., Jones, R., & Potrac, P. (2009). *Understanding Sports Coaching.* Oxon: Routledge.

Charmaz, K., Thornberg, R., & Keane, E. (2018). Evolving Grounded Theory and Social Justice Inquiry. In N. K. Denzin, & Y. S. Lincoln, *The SAGE handbook of qualitative reseearch* (pp. 411-443). Thousand Oaks: SAGE.

Cho, J. Y., & Lee, E.-H. (2014). Reducing Confusion about Grounded Theory and Qualitative Content Analysis: Similarities and Diffrences. *The Qualitative Report*, 8-11.

Chow, J. Y., Davids, K., Button, C., & Renshaw, I. (2016). *Nonlinear pedagogy in skills acquisition: an introduction.* Abingdon: Routledge.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 95-120.

Cook, C. J., & Beavan, C. M. (2013). Individual perception of recovery is related to subsequent sprint performance. *British Journal of Sports Medicine*, 705–709.

Costa, A., & Kallick, B. (1993). Through the Lens of a Critical Friend. *Educational Leadership*, 49-51.

Croad, A., & Vinson, D. (2018). Investigating games-centred pedagogies to enhance athlete decision making in elite coaching contexts. *International Journal of coaching science*, 35-68.

Cushion, C. J., & Jones, R. L. (2006). Power, discourse and symbolic violence in professional youth soccer: The case of Albion Football Club. *Sociology of Sport Journal*, 142 - 161.

Cushion, C. J., Armour, K. M., & Jones, R. L. (2003). Coach education and continuing professional development: Experience and learning to coach. *Quest*, 215 - 230.

Danks, A. (2019, January 25). *Coaching Seminar.* (FA, Performer) William Green Domain, Auckland, Auckland, New Zealand.

Danks, A. (2019, February 21st). Personal communication. (S. Moffatt, Interviewer) Retrieved from personal communication.

Danks, A. (2019, February 21st). *Player engagement*. Retrieved from personal communication.

Dewey, J. (1997). *How we think: A restatement of the relation of reflective thinking to the educational process.* Lexington MA: Dover Publications.

Drew, M. K., & Finch, C. F. (2016). The Relationship Between Training Load and Injury, Illness and Soreness: A Systematic and Literature Review. *Sports Med*, 861–883.

Drust, B. (2010). Performance analysis research: Meeting the challenge. *Journal of Sports Sciences*, Journal of Sports Sciences,.

Dura-Vila, V. (2010). Why playing beautifully is morally better. In T. Richards, *Soccer and Philosophy: Beautiful thoughts on the beautiful game* (pp. 141-148). Chicago: Open Court.

Duthie, G., Pyne, D., & Hooper, S. (2003). Applied physiology and game analysis of rugby union. *Sports Medicine*, 973– 991. .

Eckel, T. L., Watkins, C. M., Archer, D. C., Wong, M. A., Arevalo, J. A., Lin, A., . . . Brown, L. E. (2017). Bench press and pushup repetitions to failure with equated load. *International Journal of Sports Science*, 647–652.

Ellis, C. (2004). *The ethnographic I: A methodological novel about autoethnography.* Walnut Creek: AltaMira.

Ellis, C., Adams, T. E., & Bochner, A. P. (2011, January). *Forum: Qualitative Social Research*. Retrieved from Autoethnography: An Overview: http://www.qualitative-research.net/index.php/fqs/article/view/1589/3095

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative Content Analysis: A Focus on Trustworthiness. *SAGE Open*, 1-10.

Ely, R., Ainley, M., & Pearce, J. (2013). More than enjoyment: Identifying the positive affect component of interest that supports student engagement and achievement. *Middle Grades Research Journal*, 13-32.

Ettorre, E. (2013). Drug User Researchers as Autoethnographers: “Doing Reflexivity" with Women Drug Users. *Substance Use & Misuse*, 1377-1385.

Evans, J. R. (2012). Elite Rugby Union Coaches; Interpretation and Use of Game Sense in New Zealand. *Asian Journal of Exercise & Sports Science*, 85-97.

Falcous, M., & McLeod, C. (2012). Anyone for Tennis? Sport, Class and Status in New Zealand. *New Zealamnd Sociology*, 13-30.

Fetterman, D. M. (2010). *Ethnography.* Thousand Oaks: Sage Publications.

Field , J. (2003). *Social Capital.* London: Routledge.

Galvan, H., Fyall, G., & Culpan, I. (2012). High Performance cricket coaches' perceptions of an educationally informed coach education programme. *Asia-Pacific Journal of Health, Sport and Physical Education*, 123-140.

Glaser, B., & Strauss, A. (1968). *Time for Dying.* Chicago: Aldine.

Glasser, B. (1992). *Basics of grounded theory analysis.* Mill Valley: Sociology Press.

Glazier, P. S. (2010). Game, Set and Match? Substantive Issues and future directions in performance analysis. *Sports Medicine*, 625-634.

Glazier, P. S. (2010). Gane, Set and Match? Substantive Issues and future directions in performance analysis. *Sports Medicine*, 625-634.

Goldman, A. (1986). *Epistemology and cognition.* Boston: Harvard University Press.

Groom , R., Cushion, C., & Nelson, L. (2011). The Delivery of Video-Based Performance Analysis by England Youth Soccer Coaches: Towards a Grounded Theory. *JOURNAL OF APPLIED SPORT PSYCHOLOGY,*, 16–32.

Groom, R., & Cushion, C. (2005). Using of Video Based Coaching With Players: A Case Study. *International Journal of Performance Analysis in Sport*.

Groves, M. (2011). Resisting the globalization, standarization and rationalization of football: my journey to Bilbao. *Soccer & Society*, 265-278.

Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In N. K. Denzin, & Y. S. Lincoln, *Handbook of qualitative research* (pp. 105-117). Thousand Oaks: Sage.

Halpern, D. (2005). *Social Capital.* Cambridge: Polity Press.

Hartley, D. (2007). Organizational epistemology, education and social theory. *British Journal of Sociology of Eduction*.

Harvey, S. (2009). A study of Interscholastic Soccer Players Perceptions of Learning with Game Sense. *Asian journal of Exercise and Sports Science*, 1-10.

Harwood, C. (2008). Developmental Consulting in a Professional Football Academy: The 5C's Coaching Efficacy Program. *The Sport Psychologist*, 109-133.

Heller, H. (1988). The Advisory Service and Consultancy. In H. Gray, *Management Consultancy in Schools.* London: Cassell.

Hogarth, L. W., Burkett, B. J., & McKean, M. R. (2016). Match demands of professional rugby football codes: A review from 2008 to 2015. *International Journal of Sports Science & Coaching*, 451–463.

Høigaard, R., Haugen, T., & Johansen, B. T. (2017). Team identity in youth soccer: The role of coaches feedback patterns and use of humour. *International Journal of Sports Science and Coaching*, 697-707.

Holman Jones, S. (2005). Autoethnography: Making the personal political. In N. K. Denzin, & Y. S. Lincoln, *Handbook of qualitative research* (pp. 763-791). Thousand Oaks: Sage.

Horrocks, D. E., McKenna, J., Whitehead, A. E., Taylor, P. J., Morley, A. M., & Lawrence, I. (2016). Preparation, structured deliberate practice and decision making in elite level football: The case study of Gary Neville (Manchester United FC and England). *Sports Science and Coaching*, 673-682.

Hu, S., & Kuh, G. D. (2002). Being (Dis)engaged In educationally Purposeful Activities:The Influences Of Student And Institutional Charactarisitcs. *Research in Higher Education*, 555-575.

Hughes, M. (2015). An overview of the development of notational analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 54-87). Oxon: Routledge.

Hughes, M. (2015). Analysis of notation data: reliability. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 169-179). Oxon: Routledge.

Hughes, M. (2015). Examples of notation systems. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 135-168). Oxon: Routledge.

Hughes, M. (2015). How do we design simple systems? How to develop a notational system. In M. Hughes, *Essentials of Performance Analysis* (pp. 124-132). Oxon: Routledge.

Hughes, M. (2015). Sports Analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 113-123). Oxon: Routledge.

Hughes, M. D., & Bartlett, R. M. (2015). The use of performance indicators in performance analysis. In H. Mike , & I. Franks, *Essentials of Performance Analysis* (pp. 89-112). Oxon: Routledge.

Hughes, M. D., & Bartlett, R. M. (2015). The use of performance indicators in performance analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 89-112). Oxon: Routledge.

Hughes, M., & Bartlett, R. (2015). What is Performance Analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 18-28). Oxon: Routledge.

Hughes, M., & Franks, I. (2005). Analysis of passing sequences, shots and goals in soccer. *Journal of Sports Sciences*, 509 – 514.

Hughes, M., & Franks, I. M. (2015). *Essentials of Performance Analysis in Sport 2nd Edition.* Oxon: Routledge.

Iacono, J., Brown, A., & Holtham, C. (2009). Research Methods - a Case Example of Participant Observation. *Electronic Journal of Business Research Methods*, 39-46.

Johnson, D. W., & Johnson, R. (1985). Classroom conflict: Controversy versus debate in learning groups. *American Educational Research Journal*, 237-256.

Johnson, D. W., Johnson, R., & Smith, K. A. (1991). *Cooperative learning: Increasing college faculty instructional productivity.* WAshington DC: The George Washington University, School of Education and Human Development,.

Johnson, D. W., Maruyama, G., Johnson, R., Nelson, D., & Skon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. *Psychological Bulletin*, 47-62.

Johnston, R. D., Gabbett, T. J., & Jenkins, D. G. (2015). Influence of Number of Contact Efforts on Running Performance During Game-Based Activities. *International Journal of Sports Physiology and Performance*, 740 -745.

Jones, L., Evans, L., & Mullen, R. (2007). Multiple Roles in Applied Setting: Trainee sport Psychologist, Coach and Researcher. *The Sport Psychologist*, 210-226.

Jones, R. (2009). Coaching as caring (the smiling gallery)" accessing hidden knowledge. *Physical Education and Sport Pedagogy*, 377-390.

Jones, R., Armour, K., & Potrac, P. (2004). *Sports Coaching Cultures.* New York: Routledge.

Jones, S. H., Adams, T. E., & Ellis, C. (2013). *Handbook of Autoethnography.* New York: Routledge.

Kamberelis, G., Dimitriadis, G., & Welker, A. (2018). Focus Group Research and/in figured worlds. In N. K. Denzin, & Y. S. Lincoln, *SAGE Handbook of Qualitative Research* (pp. 692-716). Los Angeles: SAGE publications.

Knowles, Z., & Gilbourne, D. (2010). Aspiration, Inspiration and Illustration: Initiating Debate on Reflective Practice Writing. *The Sport Psychologist*, 504-520.

Knowles, Z., Katz, J., & Gilbourne, D. (2012). Reflective Practice within Elite Consultancy: Diary Extracts and Further Discussion on a Personal and Elusive Process. *The Sport Psychologist*, 454-469.

Kovacs, L., & Corrie, S. (2017). Building reflective vapability to enhance coaching practice. *The Coaching Psychologist*, 1-12.

Krause, K. L. (2005). Engaged, inert or otherwise occupied? Deconstructing the twenty-first century undergraduate student. *Keynote Paper at the Sharing Scholarship in Learning and Teaching: Engaging Students Symposium,.* Townsville, QLD.

Krause, K. L., & Coates, H. (2008). Students' engagement in first-year university. *Assessment and Evaluation in Higher Education*, 493-505.

Krippendorf, K. (1989). Content Analysis. In E. Barnouw, G. Gerbner, W. Schramm, T. I. Worth , & L. Gross, *International encyclopedia of communication* (pp. 403-407). New York: Oxford University Press.

Kuh, G. D. (2000). In M. J. Barr, & M. Desler, *Understanding Campus Enviroments* (pp. 50-72). San Francisco: Jossey-Bass.

Kuh, G. D., Hu, S., & Vesper, N. (2000). They shall be known by what they do: An activities-based typology of college students. *J. Coll. Stud. Dev.*, 228–244.

Lago, C. (2009). The influence of match location, quality of opposition, and match status on possession strategies in professional association football. *Journal of Sports Sciences*, 1463-1469.

LaPointe, K. (2010). Narrating career, positioning identity: Career identity as a narrative practice. *Journal of Vocational Behavior*, 1-9.

Larsen, O. (2001). Charles Reep: A major Influence on British and Norwegian Football. *Soccer and Society*, 58 - 78.

Lees, A., & Robinson, M. (2015). Qualitative biomechanical analysis of technique. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 180-197). Oxon: Routledge.

Liebermann, D. G., & Franks, I. M. (2015). Video based technologies, substitution of reality and performance feedback. In H. Mike , & I. M. Franks, *Essentials of Performance Analysis* (pp. 44-53). Oxon: Routledge.

Light, R. (2004). Coaches' experiences of Game Sense: opportunities and challenges. *Physical Education and Sport Pedagogy*, 115-131.

Lindblom, H., Carlfjord, S., & Hagglund, M. (2018). Adoption of use of an injury prevention exercise program in female football: A qualitative study among coaches. *Scand J Med Sci Sports*, 1295-1303.

MacDonald, C. (2012). Understanding Participatory Action Research: A Qualitative Research Methodology Option. *Canadian Journal of Action Research*, 34-50.

MacKenzie, R., & Cushion, C. (2013). Performance analysis in football: A critical review and implications for future research. *Journal of Sports Sciences*, 639–.

Maitland, A., & Gervis, M. (2010). Goal-setting in youth football. Are coaches missing an opportunity. *Physical Education and Sport Pedagogy*, 323-343.

Manley, A. J., Greenlees, I. A., Smith, M. J., Batten, J., & Birch, P. D. (2014). The influence of coach reputation on the behavioural responses of male soccer players. *Scandinavian Journal of Medicine & Science in Sports*, 111-120.

Markula, P. (2019). What is New About New Materialism for Sport Sociology? What is New About New Materialism for Sport Sociology? *Sociology of Sport Journal*, 1-11.

McGarry, T. (2015). Probablitity analysis of notated events in sports contests: skill and chance. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 224-238). Oxon: Routledge.

McKenna, M., Cowan, D. T., Stevenson, D., & Baker, J. S. (2018). Neophyte experiences of football match analysis: a multiple case study approach. *Research In Sports Medicine*.

McLean, S., Salmon, P., Goman, A. D., & Read, G. J. (2017). What's in a game? A systems approach to enhancing performance analysis in football. *Plos One*.

Middlemas, S. G., Croft, H. G., & Watson, F. (2018). Behind closed doors: The role of debriefing and feedback in a professional rugby team. *International Journal of Sports Science*, 201–212.

Middlemas, S., & Harwood, C. (2018). No Place to Hide: Football Players' and Coaches' Perceptions of the Psychological Factors Influencing Video Feedback. *Journal of Applied Sport Psychology*, 1–22,.

Middlemas, S., & Harwood, C. (2019). A Pre-Match Video Self Modelling Intervention in Elite Youth Football. *Journal of Applied Sports Psychology*, 1533-1571.

More, K., & Cameron, E. (2015). Notational analysis of coaching behaviour. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 350-362). Oxon: Routledge.

Morley, D., Morgan, G., & Nicholls, A. R. (2014). Developmental Contexts and Features of Elite Academy Football Players: Coach and Player Perspectives. *International Journal of Sports Science & Coaching*, 217-233.

Nagel, R. (2002). "Reinforcement, Positive and Negative.". In *UXL Encyclopedia of Science* (pp. 1657-1659). UXL.

Neil, R., Bowles, C. R., Fleming, S., & Hanton, S. (2016). The Experience of Competition Stress and Emotions in Cricket. *The Sport Psychologist*, 76-88.

Nelson, L., Potrac, P., & Groom, R. (2011). Receiving video based-feedback in elite ice hockey: a players perspective. *Sport, education and society*, 1-22.

Neuman, L. W. (2000). *Social Research Methods: Qualitative and Quantitiatve Approaches.* USA: Allyn adn BAcon.

Occhino, J., Mallett, C., & Rynne, S. (2013). Dynamic Social Networks in high Performance Coaching. *Physical Education and Sport Pedagogy*, 90-102.

O'Donoghue, P. (2015). *An Introduction to Performance Analysis of Spor.* Oxon: Routledge.

Oxendale, C. L., Twist, C., Daniels, M., & Highton, J. (2016). The Relationship Between Match-Play Characteristics of Elite Rugby League and Indirect Markers of Muscle Damage. *International Journal of Sports Physiology and Performance*, 515 -521.

Peachey, J. W., Bruening, J., Lyras, A., & Cunningham, G. B. (2015). Examining Social Capital Development Among Volunteers of a Multinational Sport-for-Development Even. *Journal of Sport Management*, 27-41.

Perrone, D. (2010). Gender and Sexuality in the Field: A Female Ethnographer's Experience Researching Drug Use in Dance Clubs. *Substance Use & Misuse*, 717-735.

Perrone, D., Helgesen, R. D., & Fischer, R. G. (2013). United States drug prohibition and legal highs: How drug testing may lead cannabis users to Spice. *Drugs: education, prevention and policy*, 216-224.

Philaratou, A. G., & Allen, K. R. (2006). Researching Sensitive Topics through Autoethnographic Means. *The Journal of Men's Studies*, 65-78.

Pollard, R. (2002). Charles Reep (1904± 2002): pioneer of notational and performance analysis in football. *Journal of Sports Sciences*, 853± 855.

Potrac, P., & Jones, R. L. (2009). Micropolitical Workings in Semi-Professional Football. *Sociology of Sport*, 557-577.

Potrac, P., Brewer, C., Jones, R., Armour, K., & Hoff, J. (2000). Towards an Holisitc Understanding of the Coaching Process. *Quest 2000*, 186-199.

Potrac, P., Jones, R. L., & Armour, K. L. (2002). 'It's all about getting respect': The coaching behaviours of an expert English soccer coach. *Sport, Education and Society,*, 183–202.

Redwood-Brown, A. (2015). Systems of measurement in time-motion analysis - a case study of soccer. In M. Hughes, & I. M. Franks, *Esentials of Performance Analysis* (pp. 198-214). Oxon: Routledge.

Richmond, L., Dawson, B., Eastwood, P. R., & Hamilton, D. R. (2004). The effect of interstate travel on sleep patterns of elite Australian Rules footballers. *Journal of Science and Medicine in Sport*, 186–196.

Rorth, M., Tjornhoj-Thomsen, T., Cormie, P., Oliffe, J. L., & Midtgaard, J. (2019). Attitudes and Experiences of Men With Prostate Cancer Risk in the Context of Injuries Related to Community-Based Football - A Qualitative Study. *Journal of Aging and Physical Activity*, 205-212.

Røynesdal, Ø., Toering, T., & Gustafsson, H. (2017). Understanding players transition from youth to senior professional football environments: A coach perspective. *International Journal of Sports Science and Coaching*, 26-37.

Russell, J. S. (2007). *Broad internalism and internal values in sport.* Champaign, IL: Human Kinetics.

Schlechty, P. C. (2002). *Working on the work: An action plan for teachers, principals, and superintendents.* San Francisco: Jossey-Blass.

Schlechty, P. C. (2009). *Leading for learning: How to transform schools into learning organisations.* San Francisco: Jossey-Blass.

Schroeder, P. J. (2014). Changing Team Culture:The Perspectives of Ten Successful Head Coaches. *Journal of Sports Behaviour*, 63-88.

Simon, G. M., Hayden, G. C., & Fiona, W. (2018). Behind closed doors: The role of debriefing and feedback in a professional rugby team. *Sports Science & Coaching*, 201-212.

Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What can it mean and why might we do it? *Psychology of Sport and Exercise*, 1-11.

Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What it can mean and why might we do it? *Pschology of Sport and Exercise*, 1-11.

Sparkes, A. (2002). *Telling Tales in sport and physical activity: A qualitative journey.* Champaign, IL: Human Kinetics.

Sparkes, A. C. (2000). Autoethnography and Narratives of Self: Reflections on Criteria in Action. *Sociology of Sport Journal*, 21-43.

Sparkes, A. C. (2007). Making the Case for Poetic Repsresentations: An Example in Action. *The Sport Psychologist*, 170-190.

Sparkes, A. C., & Douglas, K. (2007). Making the Case for Poetic Representations: An Example in Action. *The Sport Psychologist*, 170-190.

Sparkes, A. C., & Partington, S. (2003). Narrative Practice and its Potential Contribution to Sport Pschyhology: The Example of Flow. *The Sport Psychologist*, 292-317.

Strauss, A., & Corbin, J. (1998). *Basic of qualitative research: Techniques and procedure for developing grounded theory.* Thousand Oaks CA: Sage.

Szczepanski, L. (2008). Measuring the effectiveness of strategies and quantifying players performance in football. *International Journal of Performance Analysis in Sport*, 55-66.

Templin, T. J., Sparkes, A., Grant, B., & Schempp, P. (1994). Matching the Self: The Paradoxical Case and Life History of a Late Career Teacher/Coach. *Journal in Teaching in Physical Education*, 274-294.

Tenga, A. P., Holme, I., Ronglan, L. T., & Bahr, R. (2010). Effects of Match Location on Playing Tactics for Goal Scoring in Norwegian Professional Soccer. *Journal of Sport Behavior*, 89-108.

Themen, K. (2016). Female football players in England: examining the emergence of third space narratives. *Soccer and Society*, 433-449.

Thiesfield, K., & Lovell, D. (2017). OPTIMAL LOAD FOR PEAK POWER OUTPUT ON THE BENCH PRESS EXERCISE IN TRAINED INDIVIDUALS. *Journal of Australian Strength and Conditioning*, 1-6.

Thomas, D. (2006). A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*, 237-246.

Torres, C. R. (2012). Furthering Interpretivism'sIntegrity: Bringing together Ethics and Aesthetics. *Journal of the Philosophy of Sport*, 299-319.

Traynor, M. (2014). Focus Group Research. *Nursing Standard*, 44-48.

Tveten, K. M., Arnevik, K., & Jahnsen, R. (2017). Goal-directed physical activities in group rehabilitation and impact on health-related quality of life and participation among young adults with physical disabilities – a qualitative study. *European Journal of Physiotherapy*, 131-136.

Vinson, D., Brady, A., Moreland, B., & Judge, N. (2016). Exploring coach behaviours, session contexts and key stakeholder perceptins of non-linear coaching in youth sport. *International journal of Sports Science and Coaching*, 54-68.

Watson, N., Durbach, I., Hendricks, S., & Stewart, T. (2017). On the validity of team performance indicators in rugby unio. *International Journal of Performance Analysis in Sport*, 609-621.

Wheelock, P. (2019, October 12). Unseen influence of James Milner and Liverpool's contract stance. *Liverpool Echo*. Liverpool, Merseyside, UK: Trinity Mirror.

Winand, M., Belot, M., Merten, S., & Kolyperas, D. (2019). International Sport Federations' Social Media Communication: A Content Analysis of FIFA's Twitter Account. *International Journal of Sport Communication*, 209-233.

Wood, K., Patterson, C., Katikiredddi, S. V., & Hilton, S. (2013). Harms to 'others' from alcohol consumption in the minimum unit pricing policy debate: a qualitative content analysis of UK newspapers (2005-12). *Addiction*, 578-584.

Woodman, T., & Hardy, L. (2003). The relative impact of cognitive anxiety and self-confidence upon sport performance: a meta-analysis. *Journal of Sports Sciences*, 443–457.

Wright, C., Atkins, S., & Jones, B. (2012). An analysis of elite coaches' engagement with performance analysis services (match, notational analysis and technique analysis). *International Journal of Performance Analysis in Sport*, 436-451.

Wright, C., Atkins, S., Jones, B., & Todd, J. (2013). The role of performance analysts within the coaching process: Performance Analysts Survey 'The role of performance analysts in elite football club settings.' . *International Journal of Performance Analysis in Sport* , 240-261.

Wright, C., Carling, C., & Collins, D. (2014). The wider context of performance analysis and it application in the football coaching process. *International Journal of Performance Analysis in Sport*, 709-733.

Wright, C., Carling, C., Lawlor, C., & Collins, D. (2016). Elite football player engagement with performance analysis. *Journal of Performance Analysis in Sport*, 1007 - 1032.

Zemski, A. J., Slater, G. J., & Broad, E. M. (2015). Body composition characteristics of elite Australian rugby union athletes according to playing position and ethnicity. *Journal of Sports Sciences*, 970–978.

Zepke, N., Leach, L., & Butler, P. (2014). Student engagement: student's and teacher's perceptions. *Higher education research and development*, 386-398.

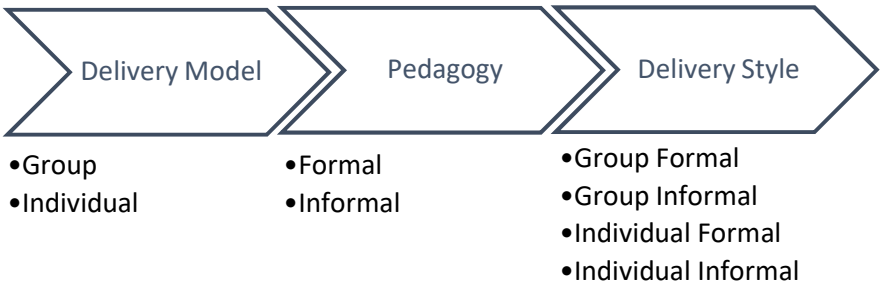


Figure 1:Themes, categories and factors influencing player engagement from qualitative content analysis of autoethnographic reflective diary of assistant coach/analyst

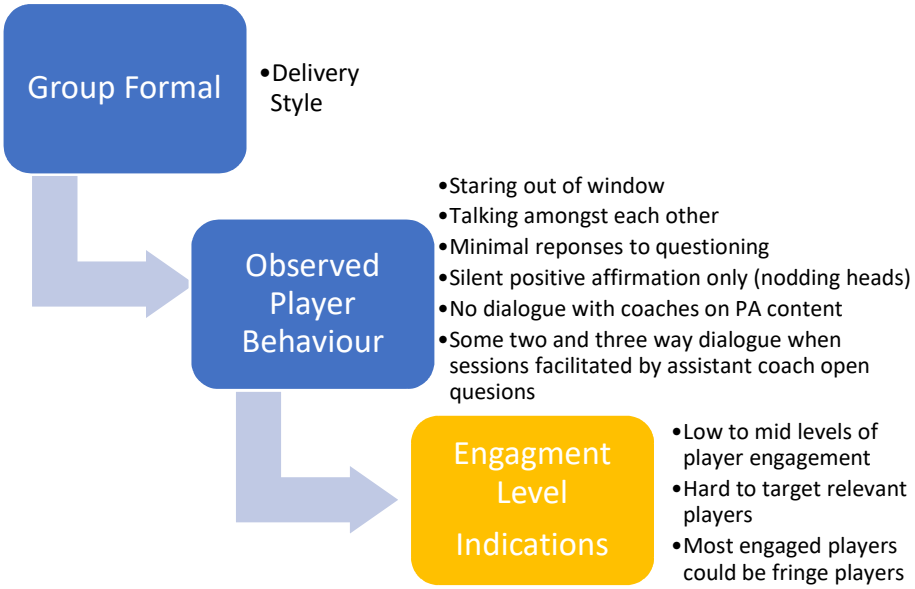


Figure 2: Group Formal delivery style findings

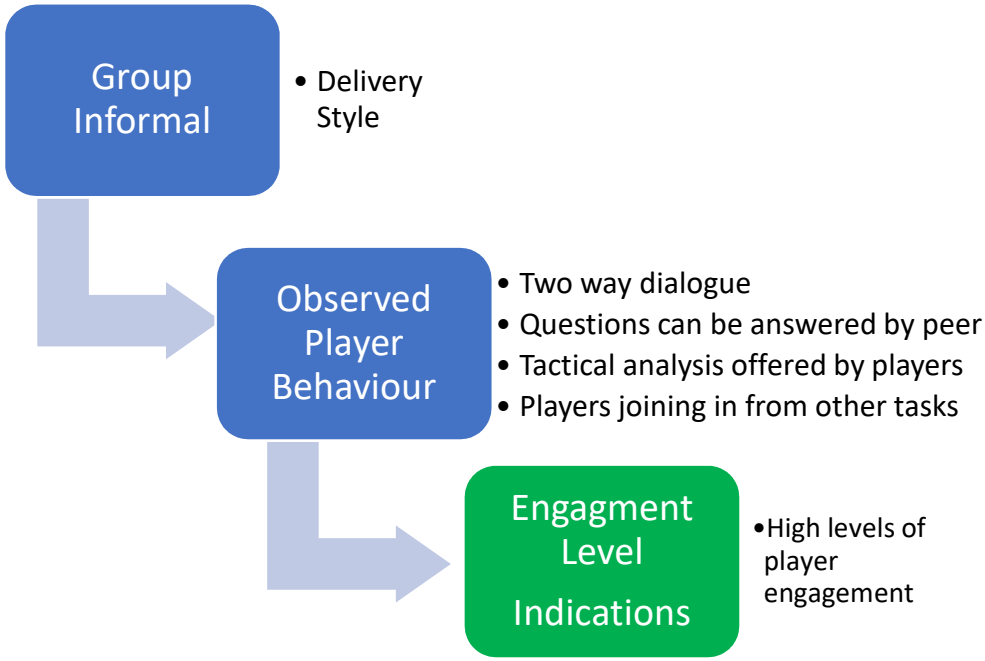


Figure 3: Group Informal delivery style findings

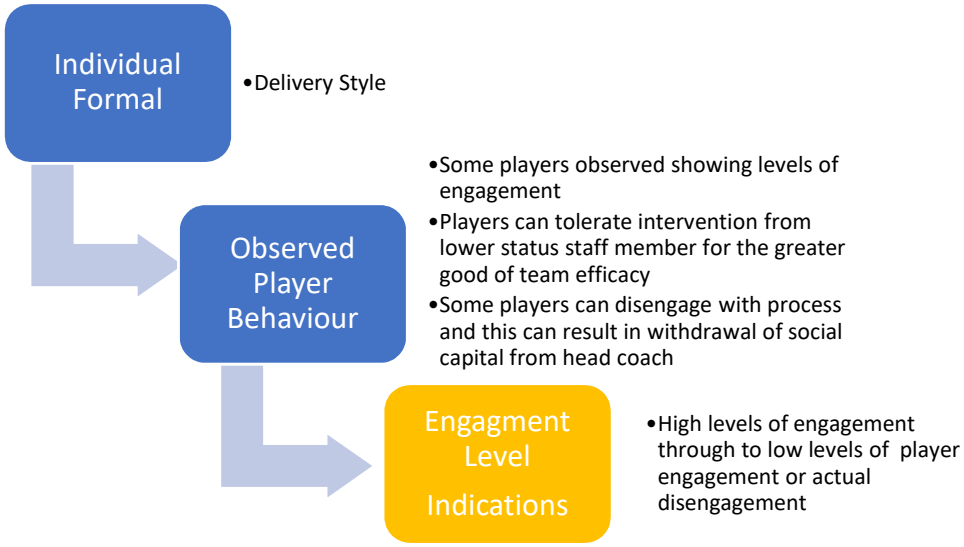


Figure 4:Individual Formal delivery style findings

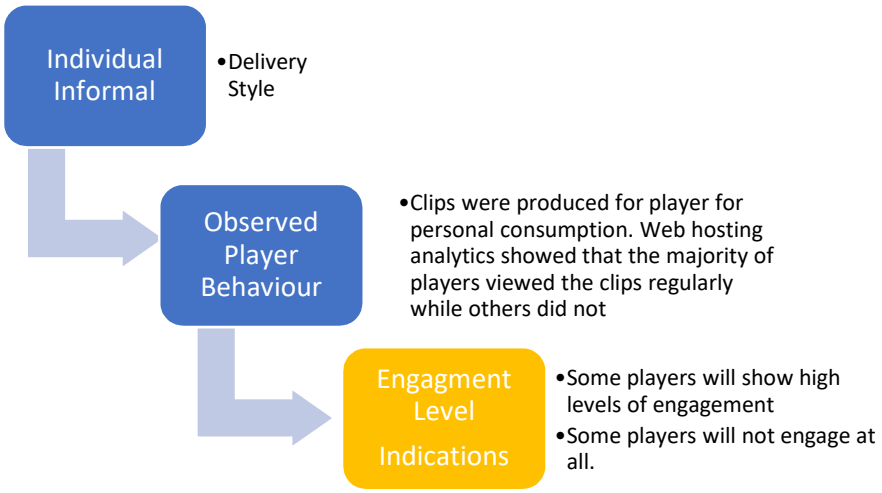


Figure 5: Individual Informal delivery style findings

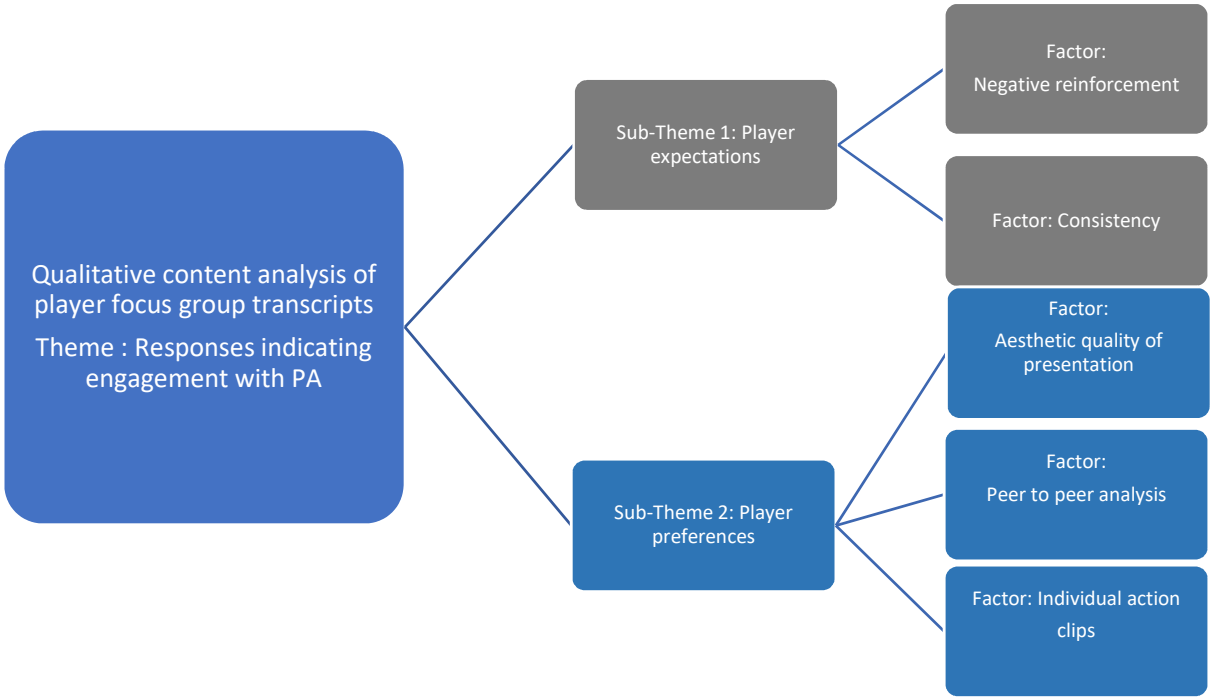


Figure 6: Player focus group findings

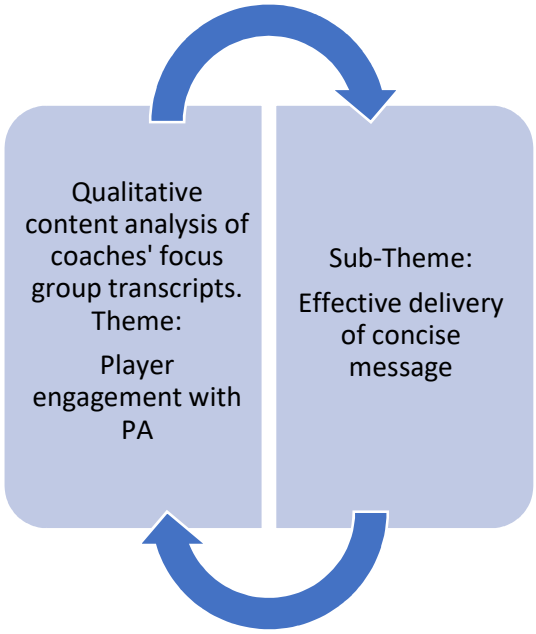


Figure 7:Coaches focus group findings

Appendix B: Paper for submission to International Journal of Performance Analysis in Sports

"He wants you off free kicks ": Social capital, pedagogy and the agency of a Performance Analyst in a New Zealand national league team.

S. Moffatt *§, C. Ramsey † and S. Middlemas ‡

* Institute of Sport & Adventure, Otago Polytechnic, Forth Street, Private Bag 1910, Dunedin 9054, New Zealand

† Institute of Sport & Adventure, Otago Polytechnic, Forth Street, Private Bag 1910, Dunedin 9054, New Zealand

‡ Institute of Sport & Adventure, Otago Polytechnic, Forth Street, Private Bag 1910, Dunedin 9054, New Zealand §Author for correspondence.

Email: codi.ramsey@op.ac.nz

“He wants you off free kicks “: Social capital, pedagogy and the agency of a Performance Analyst in a New Zealand national league team.

Abstract

Recently there have been calls in both the PA in football and the coaching literature for qualitative researchers to consider the sociological and pedagogical implications of their findings. This paper draws on a study into player engagement with Performance Analysis (PA) in a New Zealand National league football club. The lead author was a participant researcher and kept an autoethnographic reflective diary on their self-practice as the Men’s team’s Performance Analyst. Findings from a qualitative content analysis of the general inductive approach, revealed the behaviour of senior players, towards pedagogic one-on-one interventions by the Performance Analyst, could be understood in terms of the club’s structure, the habitus with in the club, the social capital of the coaches and senior players and the impact on the agency of the Performance Analyst.

Keywords:

Performance Analysis, Autoethnography, Qualitative Content Analysis, Social Capital, Delivery Model, Pedagogy, Delivery Style, Structure, Agency

Introduction

Performance Analysis's (PA) exact definition is debateable but as a sports discipline it is increasingly considered within close orbit of sports coaching. While opposing ontological and epistemological paradigms threaten to engulf the discipline in wider existential questions about the nature of reality, a broad consensus is emerging that defines PA as the creation of performance data for the consumption of coaches and increasingly, for athletes themselves (Booroff et al, 2016; Brown & Potrac, 2009; Carling et al, 2013; Groom & Cushion, 2005; Groom et al, 2011; MacKenzie & Cushion, 2013; O'Donoghue, 2015). PA allows the coach to review the tactical facets of players' decision making, their technical ability and evaluate the impact of socio-cultural and environmental variables on performance (Booroff et al, 2016; Carling et al, 2013; Middlemas, Croft, & Watson, 2018; Groom & Cushion, 2005; MacKenzie & Cushion, 2013; McKenna et al, 2018).

Social capital is a sociological description of power distribution within social groups (Halpern, 2005). It is a central concept within sociology, which maintains that power is allocated in a socio-cultural group by the negotiated dealing of reciprocal favours in return for access to power, held by elites (Field , 2003).

It is unevenly distributed and dependant on the access to resources individuals have within their socio-cultural networks (Peachey, Bruening, Lyras, & Cunningham, 2015). Social capital would appear to have three components, networks, norms and sanctions (Halpern, 2005). Within the coaching literature, coaches have been shown to be recruited solely through and by the connections made during elite playing careers, this can be seen as the norm for recruiting into the network which is professional coaching (Blackett, Evans, & Piggot, 2018; Halpern, 2005).

The status afforded to the coaches from a high-level playing background not only allows them access to recruitment into the clubs, but also credits the coaches with social

capital in their clubs which in turn *buys* respect from players (Blackett et al, 2018). The *lack* of intrinsic social capital and inferred low status of the analyst meanwhile, is reflected in the 33.3% of surveyed elite English analysts who do not have full-time contracted positions with their professional clubs or academies. These low status analysts still work on average more than 60 hours a week (Wright et al, 2013). The analysts often start their career with a bachelor's or master's degrees in sports coaching and holding advanced level coaching licenses (Wright et al, 2013). The analyst's qualifications are not only often considered irrelevant but can be considered a hinderance to be discarded and skills re-learnt accordingly within the club's philosophy (McKenna et al, 2018). To survive in this environment analysts, structure their work to build trust, rapport and respect with coaches, who in turn act as gatekeepers for establishing efficacy with the players (McKenna et al, 2018; Wright et al, 2013).

Pedagogy can be broadly understood to be the 'science of teaching' (Jones et al, p95, 2004) and has been widely used throughout education literature since the turn of the century (Cassidy, Jones, & Potrac, 2009; Jones et al, 2004). The etymology of pedagogy shows that the word derives from the word 'pedagogue' (Jones et al, p96, 2004), which in ancient Greece was a live-in servant whose purpose was to develop the moral, ethical and civic integrity of the noble children (Jones et al, 2004). The term pedagogy is therefore used in the context of coaching to describe not only the teaching or instructional process but also the environmental, socio-cultural, moral, political, ethical and aesthetic transferences between coach and athlete (Jones et al, 2004). Pedagogy is therefore considered not only *what* is coached, but also *how* it coached (Høigaard et al, 2017; Jones et al, 2004). The *how* is a product of the environment in which coaching takes place and the wider 'community of practice' (Jones et al, p107, 2004) that has produced the coaching pathways, mentorships and

peer-to-peer learning that coalesce into individual personal coaching philospophies (Blackett et al, 2018).

In consideration of the call from many researchers within the PA in football canon for further exploration of current football coaching pedagogy (Carling et al, 2013; Groom et al, 2011; MacKenzie & Cushion, 2013) a cursory sideways look at current trends within the coaching pedagogy literature (Light, 2004; Maitland & Gervis, 2010) and corresponding evidence from elite practitioners (Horrocks, et al., 2016) shows a developing, yet pragmatic, interest in nonlinear pedagogies (Cassidy & Kidman, 2010; Cassidy,et al 2009; Chow, Davids, Button, & Renshaw, 2016; Evans, 2012; Jones et al, 2004; Light, 2004). Direct pedagogies have been shown to fail to engage players as they are not active participant learners (Cassidy et al, 2009). In contrast non-linear pedagogies are player centric and concentrate on developing decision making by contextualising learning within game-like scenarios as opposed to the rote like learning of technique (Cassidy et al, 2009; Chow et al, 2016; Jones et al, 2004; Light, 2004)

PA can be used within this type of coaching pedagogy as part of a player empowerment process. It allows the players to learn *from* the game in preparation *for* the game (Evans, 2012). From this perspective it is insufficient to evaluate the effectiveness of PA from the moment the coach has finished delivering feedback to the overall performance outcome, without a deeper understanding of the impact of its perceived usefulness by the players (Groom & Cushion, 2005).

Interpretivist philosophical investigations (Carling et al, 2013; MacKenzie & Cushion, 2013), from a structuralist sociological perspective *can* be used to understand the structure, agency and social capital within the environment coaches, performance analysts and players work in (Bandura, 1997; Blackett, et al, 2018; Bourdieu, 1972; Field , 2003; Glaser & Strauss, 1968; Halpern, 2005), Together with an understanding of how coaching is

a form of pedagogy (Cassidy et al, 2009; Jones et al, 2004), this allows us to understand the contexts of how learning takes place within the coaching cycle of a football club (McKenna et al, 2018).

Qualitative research has emerged throwing valuable light on the process of becoming a performance analyst (Booroff et al 2016; Butterworth & Turner, 2014; McKenna et al, 2018; Middlemas & Harwood, 2019; Wright et al, 2013). The links between elite football clubs and tertiary education providers are often strong (McKenna et al, 2018). Lecturers maintain strong links with both clubs and their course alumni, to provide proven internships pathways from their courses (Butterworth & Turner, 2014). Academics also use these contacts as a handy source of in-situ applied practice research material (Booroff et al, 2016; Butterworth & Turner, 2014; McKenna et al, 2018).

Butterworth and Turner (2014) point to the ability of academia to create pathways to PA internships as the successful recognition of PA as an applied discipline. For Wright et al (2013) however, analysts often struggle with long hours, low pay, low status and little chance of career progression. Wright et al illustrate that while 66.7% of analysts have a full-time contract with the club they work for, the remaining 32.7%, are part-time, interns or unpaid volunteers. While 85.4% of analysts had undertaken a sports science or sports coaching degree, 31.3% had undertaken a masters after their degree, 58.3% of analysts had FA Level 1 coaching badges, 56.3% had FA level 2 coaching badges,18.8% had UEFA B coaching badge and 6.3% had completed their UEFA A coaching badge (Wright et al, 2013). This corroborates findings elsewhere which shows the analysts are expected to have a high level of knowledge of the game, to interpret the many action variables in according to the head coach's football philosophy (Carling et al, 2013; Groom et al, 2011). This immersion requires a qualitative understanding of the socio-cultural context of both the game and the club they

are working in (Booroff et al, 2016; McKenna et al, 2018). It can therefore be considered a highly technical, complex, highly pressured role, yet low status, overburdened and lowly compensated (Booroff et al, 2016; Carling et al , 2013; Groom et al, 2011)

The time scale for turnaround between games at the elite level is often too short for analysts to provide in depth coding, match analysis and the production and storage of large data sets. Many analysts, therefore provide a 'reductionist approach' to their analytics. (Wright et al, 2013) producing a 'snapshot' for review by coaches (Carling et al, 2013). Analyst often review their analysis immediately with the coaches (Wright et al, 2013) filtering out useless information to ensure that tactical, strategic and philosophical components are aligned to the requirements of the coaching cycle and the coach's pedagogy (Wright et al, 2013). From this review, analysts often change their analysis after the initial interaction with head coaches, which is understandable if the key contextualisation is from the perspective of the coaches playing philosophy (Wright et al, 2013).

Aside from providing the coaching staff with clips and statistics for group delivery sessions, analysts are increasingly being given responsibility for the production and individual clips for athlete self-modelling (McKenna et al, 2018; Middlemas & Harwood, 2019; Wright et al, 2013). Qualitative investigations indicate that by taking responsibility for individual clips and guiding athlete self-modelling, analysts can gain trust and build respect with both coaching staff and players (McKenna, et al, 2018; Wright et al, 2013). This is important as it shown that newly appointed analysts often need to justify the existence of their role to cynical coaches (McKenna et al, 2018). Indeed, it has been demonstrated that much extra-curricular activity is undertaken to prove game-knowledge to establish a high level of efficacy both with the coaching staff and the playing staff (McKenna et al, 2018; Middlemas & Harwood, 2019; Wright et al, 2013). Whether this efficacy can then translate

into a pedagogical role influencing player engagement with PA remains an interesting question of which there is a dearth of information on.

Material and Methods

Narrative Practice

Qualitative studies from the sports psychology canon illustrate the use of narrative practice as a valid form of data collection (Ettorre, 2013; Sparkes & Partington, 2003). Sparkes (2002) shows that by understanding *how* narratives are formed we the readers, can both understand the complexity of the authors social world (etic) and the complexity of the authors internal world (emic). Indeed, the richer the data of the 'realist tale" (Sparkes A. , 2002) the more space is created for the author to negotiate their relationship to the data (Sparkes & Partington, 2003). This separation of *what* and *how* allows for reflexivity to occur, that is one's awareness of the *act* of reflection. This allows the participant observer a wider perspective of social action in which their own reflection is also observable (Butterworth & Turner, 2014; Ettorre, 2013; Sparkes A. , 2002).

There are many approaches to reflexivity for researchers. The sports psychology canon has developed a variety of *tales* for its practitioners to adhere to. These include, but are not limited to, poetic representations (Sparkes & Douglas, 2007), confessional tales (Groves, 2011; Sparkes & Partington, 2003), ethno-fiction (Sparkes A. C., 2000) and ethno-drama (Sparkes A. , 2002). The most common mode of reflexion is, however, autoethnography (Butterworth & Turner, 2014; Ellis, 2004; Ellis, Adams, & Bochner, 2011; Holman Jones, 2005) and it is this form of narrative practice that is utilised for data collection in this paper.

Autoethnography

Autoethnography has its roots in participant observation field studies, particularly in social and cultural anthropology (Fetterman, 2010; Philaratou & Allen, 2006). It can be understood

through its etymology to be a study (graphy) of the self (auto) *and/within* the group (ethno) (Ellis, 2004; Holman Jones, 2005). This relationship between the writer, the written about and the writing itself, manifests itself in first person accounts with the author writing as 'I' (Ettorre, 2013; Fetterman, 2010; Groves, 2011; Sparkes A. , 2002). The autoethnographic material in this study can be considered the autoethnographic concept termed a 'layered account' (Ellis, Adams, & Bochner, 2011). This combines the reflective diary, focus groups verbatim transcripts, personal communications, current literature and *reflexion* upon them (Ellis, Adams, & Bochner, 2011). The intention is to create rich vignettes and evocative descriptions while continually asking the participant observer to justify their research in pursuit of positively answering the questions; "How useful is the story?" and "To what uses might the story be put?" (Bochner, 2002).

Reflective Diary

For this study an autoethnographic reflective diary is kept for the entirety of the 2018/19 football season. Entries are made as soon as possible after the occurrence of an event deemed worthy of recording. During down time during office hours while uploading and downloading video files. Often the diary is written into while travelling to away games, on planes or on buses. The reflective diary does not contain verbatim quotes but conversations as remembered by the author are recorded as dialogues recreated through the authors mind for exploration and investigation (Kovacs & Corrie, 2017; Sparkes A. , 2002). In this respect the voices represent those of the actors as perceived through the authors *reflexion* (Butterworth & Turner, 2014; Knowles & Gilbourne, 2010; Perrone, 2010; Sparkes A. C., 2000) and the intention is this be held as the lived truth of the authors experience (Sparkes A. , 2002).

Participants

The autoethnographic participant in this study is the assistant coach for the women's team and the analysts for the men's team. The ethnographic participants whose actions were recorded in the reflective diary are the players of the ISPS Handas New Zealand Men's National League (n=24) and the New Zealand National Women's League (n=22) teams during the 2018/19 season. Additionally, the coaching staff for each team (n=2, men's team and n=2, women's team) were included in the reflective diary.

The participants in the reflective diary are anonymised by using the replace function in Google docs to change the names throughout the whole document. Replacement names were taken from a list and randomly applied. An iterative process of re-reading the reflective diary occurred to ensure that similar names were not allocated. Further iteration led to anonymising teams, locations to avoid implied identification. The coaches are referred to in the reflective diary as; Peter the Men's team head coach, Mauricio the Women's team head coach and Derek the Men's team assistant coach.

Qualitative content analysis

Qualitative content analysis methodology (Cho & Lee, 2014), is a general inductive approach (Thomas, 2006). It was collected by a particpant observer and all the data can be considered autoethnographic (Cho & Lee, 2014; Elo, et al., 2014; Thomas, 2006). This was chosen over other qualitative methodologies, such as Grounded Theory, as a general inductive approach allows open coding to categorise the how, what and why of different data sources. (Cho & Lee, 2014). Qualitative content analysis starts after data collection is complete and does *not* propose building theories or finding the relationships between categories (Cho & Lee, 2014; Elo, et al., 2014). The relationship between the participant observer and objective facts is recognised in the social sciences as being almost certainly causal (Guba & Lincoln, 1994) In this regard an autoethnographic participant observer should be weary of building a theory

based on their own data (Guba & Lincoln, 1994). This is to reiterate that despite similarities between the chosen methodology, this work should *not* be considered to have used a grounded theory methodology.

During the inductive open coding, themes are identified as Group and Formal delivery models. Categories within the delivery models are identified as Formal and Informal pedagogies. The categorisation of the two delivery models with the two pedagogies results in four delivery styles, Group Formal, Group Individual, Individual Formal and Individual Informal. The delivery styles are open coded for factors from the source data (Cho & Lee, 2014; Glasser, 1992). There then follows a process of iteration, to ensure that the factors are relevant and that no convergence was observed (Glasser, 1992).

In accordance with Fetterman (2010) a natural break in the particiapant observers applied practices schedule signalled the end of the data collection period. This coincided with the perception that there is now sufficient data collected and subsequent collection would no longer prove relevatory (Fetterman, 2010). Time is allowed to pass after the end of the data collection period. This was to establish emotional distance from the in practice reflections, allow for the process of emic reflexion (Knowles, Katz, & Gilbourne, 2012) and to help to further guard against bias (Dura-Vila, 2010).

This isfollowed by a period of reading and re-reading the reflective diary and the review of the current literature on PA in football. From the re-reading, themes were sought and subthemes began to emerge (Booroff et al, 2016; Glasser, 1992; Groom et al, 2011; Kovacs & Corrie, 2017; Middlemas & Harwood, 2019). These themes and subthemes were then analysed for simularities which would warrant the merging of themes to narrow down the thematic search. (Dura-Vila, 2010; Glasser, 1992; Lindblom et al, 2018). This iterative process of moving back and forth between the reflective diary and the exisitng literature

allows for the abstraction process to identify areas of overlap and convergence (Elo, et al., 2014; Glasser, 1992; Krippendorf, 1989).

Previous autoethnographic work in the coaching literature argues that a final stage of the process is for the author to decide to let the story stand-alone or place it within a wider theoretical background (Jones R ,2009). Deductive flexibility is often used in the abstract phase of the general inductive approach to qualitative content analysis (Cho & Lee, 2014; Thomas, 2006). Pierre Bourdieu's work on habitus, structure and agency from his seminal work, Outline of a Theory of Practice (1972) has been found to an important corner stone of contemporary sociological investigations into sport (Falcous & McLeod, 2012). Deductive iteration allowed the findings of the study to be undertood within a sociological perspective aligned closely to Bourdieu's (Figure 1 near here).

Ethics

This project was reviewed and approved by the Otago Polytechnic Research Ethics Committee in consultation with the Kaitohutohu Office. Prior to the commencement of the study, before each PA delivery session and throughout the study, the players and staff were informed the assistant coach/analyst was conducting research. This was to ensure informed consent was obtained from the ethnographic participants as approved by the Otago Polytechnic Research Ethics Committee. In accordance with Ellis (2007) informed consent was supported by process consent, to ensure that the integrity of the qualitative research was that of best practice. Process consent required the autoethnographic researcher to continually check in with the participants to ensure that participants were still happy to take part and that there was an understanding of the research process, the reason for the study, their rights and responsibilities and their rights to withdraw from the study.

Stakeholder checks

In accordance with recommendations for a general inductive approach, stakeholder checks are carried out with the participants recorded in the reflective diary (Thomas, 2006). This is in the form of submitting a draft copy of the thesis for review by the participants within the club (Thomas, 2006). Informal stakeholder checks were carried out with participants while entering reflections into the diary during the data collection period (Elo, et al., 2014; Thomas, 2006). This is to clarify initial comments and to establish the in-situ credentials of the researcher (Cho & Lee, 2014; Sparkes & Douglas, 2007; Thomas, 2006)

Results

The participant researcher in this study holds two concurrent roles within the club; as Men's team analyst, and as the assistant coach for the Women's team. Because of the time constraints imposed by this of this duality, it was negotiated with the Men's head coach that on completion of the Woman's team's season, Individual Formal PA feedback will begin to be implemented with the Men's team. This will be based on producing a weekly critical moment clip, which had worked well with the Women's team for the last two games of the National Women's League. This critical moment is be based on a turning point in a game, i.e. pattern of play before the first conceded goal or a turnover in a dangerous area of the pitch resulting in a goal scoring opportunity. With the completion of the NWL, there is now more time to produce critical moment clips with the Men's team players and there will be the opportunity to go over the issues arising from the clips, one on one with the analyst.

The first critical moment for the Men's team is an incident resulting in a red card for the team's goal-keeper. The team's goal-keeper arrives out of the 18-yard box and handles the ball after a weak back header from the team's centre-half. This is an attempt to intercept a cross-field precision pass from the opposition goal-keeper, which the left-back has misjudged with an attempt at an aerial clearance. At the last second the team's centre-half realises he is

now the only one capable of connecting with the ball. Turning towards the team's goal-keeper, the ball comes over his head, not letting him get as much power on it as he would like. Of course, this is all split timing decision-making in a fast-paced National League match. The ball falls for the opposition striker, now in between the team's centre-half and the team's goal-keeper, played on-side by the centre-half's header. The team's goal-keeper 'makes himself big', holds his arms out to the sides to block the goal, comes marginally out of his box and makes the save. In doing so he committs a hand ball and obstructs a clear goal scoring opportunity. According to the FIFA rules of the game, as the last player between the attacker and the goal, the team's goal-keeper is awarded a red carded and duly sent off.

The decision to make the red card of the teams goal-keeper the critical moment that week is because it is a turning point in the game. Continuing this logic, the critical moment starts with the turnover that precedes the counter attack, which leads to the red card incident. The free-kick that the opposition goal-keeper has caught the ball from, is from the right side of the pitch, just inside the attacking third of the pitch. It is taken by the left footed set piece taker. The right footed set piece taker is standing next to him. A left footed free kick, taken from the right side of the pitch, means that the ball in-swings towards the near post. A curved trajectory that takes the ball closer to the goal-keeper. If the right footed player takes the free-kick, it will swing out, away from the goal-keeper and towards the two players arriving at the back post for a header on goal.

The critical moment clip is sent out via email to the whole team before training. The intention is then to have one-on-ones with the relevant players after training, using a laptop. One of the players involved is one of Peter's senior players, Karl's clearly stated preference is to have less video analysis and more pitch time. Karl is also the left footed free-kick taker.

Just before training on Friday before the first game of 2019, at Kapai Gardens. The coaching staff get changed in the make-shift physio room. There are a couple of physio tables setup and the physios are prepping for the players arrival,

As I arrive, sit down and put my boots on, Karl O'Doyle is on the table having his ankle strapped. Peter and Derek Hogan are also getting their boots on.

Peter "Woah, Karl O'Doyle's not happy with you!" (Meaning me).

Karl O'Doyle "What?"

Peter "yeah he's blamed you for the red card at the other end!"

Karl O'Doyle 'Oh yeah - I went for the wrong corner - sure that was a great shot you reckon I should have gone for".

Me "Not you, somebody else with a right foot to swing out!"

Karl O'Doyle "Oh"

Peter "yeah he wants you *off* freekicks!"

Derek: "Yeah, it's all *your* fault Karl O'Doyle - not tracking back! You were the only one to get back behind the ball, weren't you?"

For Karl it was further proof of the total irrelevance of PA. The only logic implied from the critical moment clip is that he is only going to take criticism from experts who have proven themselves on the only place it mattered for him, on the pitch.

For Peter individual mistakes, poor decision making and who takes set -pieces are irrelevant. These are all technical and not tactical issues. Improving the team's turnover rate in the final third for the next game, is critically important for Peter and more tactically relevant.

About those (critical moments). I'm not sure that what you think of critical moments are what I'm thinking. The problem is, it's already gone. I'm thinking about the next match straight away. I haven't got time to go over last weekend in too much detail.

So, I don't want you to come in on Friday … take ten days off. I know you think losing the job …is a set-back…but it might not be. Take 10 days off and then come back"

Discussion

The creation of critical moment clips is widely reported as a means of providing a snapshot analysis for coaches to break down key elements of the game (Carling et al, 2013; McKenna et al, 2018). For this to then be progressed to the players for Individual Formal analysis, high levels of efficacy between the performance analyst and head coach are required to ensure the transmission of tactical understanding from the coach's football philosophy (McKenna, et al, 2018; Wright et al, 2013). This can be understood to be associated to the habitus of the club, the ways of thinking and being that are developed from the structure, history and lived reality of the club (Bourdieu, 1972). The agency of and social capital of the coach (Bourdieu, 1972) is observed in the PA in football literature as allowing the head coach to act as gate-keeper for the analysts to achieve a level of team efficacy with the players (McKenna et al, 2018; Wright et al ,2013).

The critical moment clip appears to Peter to be too focussed on technical aspects and decision making and as this implies that one of the senior players has made a wrong decision at a set piece, Peter is quick to back the senior player and question the value of the critical moment clip. The social capital (Blackett et al, 2018; Bourdieu, 1972; Halpern, 2005) conferred on the analyst by Peter as gate-keeper for team efficacy (McKenna, 2018) is suddenly detached from the analyst's role and is subsequently lost and proves hard to regain. The social capital required to engage in pedagogical interventions with senior players regarding perceived negative feedback, one on one, is thus hard to imagine existing in the

agency of a performance analyst, within the structure and habitus of the football club without strong endorsement from the head coach (Bourdieu, 1972; Coleman, 1988; Halpern, 2005)

Conclusion

A qualitative content analysis of autoethnographic allows for deductive flexibility allowing connection to a sociological structuralist perspective to reveal the agency of the head coach, senior players and analysts within the observed season. Pedagogic interventions are accepted by the players from the head coach because of the high social capital held by the head coach, fed by strong feelings of shared group efficacy. The social capital of senior players, earnt from playing at a high level, is much higher than any intrinsic capital afforded to the analyst. As reported in previous literature the agency of the analyst is subject to the flow of social capital from the head coach acting as gate keeper for efficacy to the players. When senior players reject the validity of the work of the analyst, and the head coach withdraws the borrowed social capital in the interests of team efficacy, the analyst's agency is no longer able to function within the role.

References

Adams, T. E., Holman Jones, S., & Ellis, C. (2015). *Autoethnology: Understanding Qualitative Research.* New York: Oxford university Press.

Alvarez-Bell, R. M., Wirtz, D., & Bian, H. (2017). Identifying Keys to Success in Innovative Teaching:Student Engagement and Instructional Practices asPredictors of Student Learning in a Course Using a Team-Based Learning Approach. *Teaching and Learnin Inquiry*.

Baker, D., & Heaney , N. (2015). Normative Data for Maximal Aerobic Speed for Field Sports Athletes: A Brief Review. *Journal of Australian Strength and Conditioning* , 60-67.

Bandura, A. (1997). *Self Efficacy: The Exercise of Control.* MacMillan.

Bates, D. K. (2018). Flipped Classroom in an Orthopaedic Assessment Course: Studentd Perspective. *Athletic Training Education Journal*, 324-331.

BBC Sport Football. (2004, September 20). Retrieved from bbc.co.uk: http://news.bbc.co.uk/sport2/hi/football/3674210.stm

Beasley, J. G., Gist, C. D., & Imbeau, M. B. (2014). (De)constructing Student Engagement for Pre-Service Teacher Learning. *Issues in Teacher Education*, 175-188.

Beyzac, J. L., Umucu, E., Wu, J.-R., Lee, B., Chen, X., Iwanaga, K., . . . Chan, F. (2018). Strategies for recruiting, engaging and retaining members in a community of practice for disability employment: A qualitative content analysis. *Journal of Rehabilitation*, 40-47.

Blackett, A. D., Evans, A. B., & Piggot, D. (2018). Active and Passive Coach Pathways: Elite Athlete Entry Routes into High Performance Coaching Roles. *International Sport Coaching Journal*, 213-226.

Bochner, A. P. (2002). Perspectives on inquiry III: The moral of stories. In M. L. Knapp, & A. J. Daly, *Handbook of interpersonal communication* (pp. 73-101). Thousand Oaks, CA: Sage.

Booroff, M., Nelson, L., & Potrac, P. (2016). A coach's political use of video-based feedback: a case study in elite-level academy soccer. *Journal of Sports Sciences,*, 116–124,.

Bourdieu, P. (1972). *Outline of a Theory of Practice.* New York: Press syndicate of the University of Cambridge.

Brown, G., & Potrac, P. (2009). You've not made the grade, son: deselection and identity disruption in elite level youth football. *Soccer & Society*, 143-159.

Bunker, D., & Thorpe, R. (1982). A model for the teaching of games in secondary school. *Bulletin of Physical Education*, 9-16.

Butterworth, A. D., & Turner, D. J. (2014). Becoming a performance analyst:autoethnographic reflections on agency and facilitated transformational growth. *Reflective Practice*.

Butterworth, A. D., & Turner, D. J. (2014). Becomiong a performance analyst: autoethmographic reflections on agency, and facilitated transformational growth. *Reflective Practice*, 552-562.

Carling , C., Wright, C., Nelson, L. J., & Bradley, P. S. (2013). Comment on 'Performance analysis in football: A critical review and implications for future research'. *Journal of Sports Sciences*, 2–7.

Carling, C., Williams, M. A., & Reilly, T. (2007). *Handbook of soccer match analysis.* London: Routledge.

Cassidy, T., & Kidman, L. (2010). Initiating a national coaching curriculum: a paradigmatic shift? *Physical Education and Sport Pedagogy*, 307-322.

Cassidy, T., Jones, R., & Potrac, P. (2009). *Understanding Sports Coaching.* Oxon: Routledge.

Charmaz, K., Thornberg, R., & Keane, E. (2018). Evolving Grounded Theory and Social Justice Inquiry. In N. K. Denzin, & Y. S. Lincoln, *The SAGE handbook of qualitative reseearch* (pp. 411-443). Thousand Oaks: SAGE.

Cho, J. Y., & Lee, E.-H. (2014). Reducing Confusion about Grounded Theory and Qualitative Content Analysis: Similarities and Diffrences. *The Qualitative Report*, 8-11.

Chow, J. Y., Davids, K., Button, C., & Renshaw, I. (2016). *Nonlinear pedagogy in skills acquisition: an introduction.* Abingdon: Routledge.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 95-120.

Cook, C. J., & Beavan, C. M. (2013). Individual perception of recovery is related to subsequent sprint performance. *British Journal of Sports Medicine*, 705–709.

Costa, A., & Kallick, B. (1993). Through the Lens of a Critical Friend. *Educational Leadership*, 49-51.

Croad, A., & Vinson, D. (2018). Investigating games-centred pedagogies to enhance athlete decision making in elite coaching contexts. *International Journal of coaching science*, 35-68.

Cushion, C. J., & Jones, R. L. (2006). Power, discourse and symbolic violence in professional youth soccer: The case of Albion Football Club. *Sociology of Sport Journal*, 142 - 161.

Cushion, C. J., Armour, K. M., & Jones, R. L. (2003). Coach education and continuing professional development: Experience and learning to coach. *Quest*, 215 - 230.

Cushion, C., & Jones, R. L. (2006). Power, Discourse, and Symbolic Violence in Professional Youth Soccer: The Case of Albion Football Club. *Sociology of Sport Journal*, 142-161.

Danks, A. (2019, January 25). *Coaching Seminar.* (FA, Performer) William Green Domain, Auckland, Auckland, New Zealand.

Danks, A. (2019, February 21st). Personal communication. (S. Moffatt, Interviewer) Retrieved from personal communication.

Danks, A. (2019, February 21st). *Player engagement*. Retrieved from personal communication.

Dewey, J. (1997). *How we think: A restatement of the relation of reflective thinking to the educational process.* Lexington MA: Dover Publications.

Drew, M. K., & Finch, C. F. (2016). The Relationship Between Training Load and Injury, Illness and Soreness: A Systematic and Literature Review. *Sports Med*, 861–883.

Drust, B. (2010). Performance analysis research: Meeting the challenge. *Journal of Sports Sciences*, Journal of Sports Sciences,.

Dura-Vila, V. (2010). Why playing beautifully is morally better. In T. Richards, *Soccer and Philosophy: Beautiful thoughts on the beautiful game* (pp. 141-148). Chicago: Open Court.

Duthie, G., Pyne, D., & Hooper, S. (2003). Applied physiology and game analysis of rugby union. *Sports Medicine*, 973– 991. .

Eckel, T. L., Watkins, C. M., Archer, D. C., Wong, M. A., Arevalo, J. A., Lin, A., . . . Brown, L. E. (2017). Bench press and pushup repetitions to failure with equated load. *International Journal of Sports Science*, 647–652.

Ellis, C. (2004). *The ethnographic I: A methodological novel about autoethnography.* Walnut Creek: AltaMira.

Ellis, C., Adams, T. E., & Bochner, A. P. (2011, January). *Forum: Qualitative Social Research*. Retrieved from Autoethnography: An Overview: http://www.qualitative-research.net/index.php/fqs/article/view/1589/3095

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative Content Analysis: A Focus on Trustworthiness. *SAGE Open*, 1-10.

Ely, R., Ainley, M., & Pearce, J. (2013). More than enjoyment: Identifying the positive affect component of interest that supports student engagement and achievement. *Middle Grades Research Journal*, 13-32.

Ettorre, E. (2013). Drug User Researchers as Autoethnographers: “Doing Reflexivity" with Women Drug Users. *Substance Use & Misuse*, 1377-1385.

Evans, J. R. (2012). Elite Rugby Union Coaches; Interpretation and Use of Game Sense in New Zealand. *Asian Journal of Exercise & Sports Science*, 85-97.

Evans, J. R. (2012). Elite Rugby Union Coaches; Interpretation and Use of Game Sense in New Zealand. *Asian Journal of Exercise and Sports Science*, 85-97.

Falcous, M., & McLeod, C. (2012). Anyone for Tennis? Sport, Class and Status in New Zealand. *New Zealamnd Sociology*, 13-30.

Fetterman, D. M. (2010). *Ethnography.* Thousand Oaks: Sage Publications.

Field , J. (2003). *Social Capital.* London: Routledge.

Galvan, H., Fyall, G., & Culpan, I. (2012). High Performance cricket coaches' perceptions of an educationally informed coach education programme. *Asia-Pacific Journal of Health, Sport and Physical Education*, 123-140.

Glaser, B., & Strauss, A. (1968). *Time for Dying.* Chicago: Aldine.

Glasser, B. (1992). *Basics of grounded theory analysis.* Mill Valley: Sociology Press.

Glazier, P. S. (2010). Game, Set and Match? Substantive Issues and future directions in performance analysis. *Sports Medicine*, 625-634.

Glazier, P. S. (2010). Gane, Set and Match? Substantive Issues and future directions in performance analysis. *Sports Medicine*, 625-634.

Goldman, A. (1986). *Epistemology and cognition.* Boston: Harvard University Press.

Groom , R., Cushion, C., & Nelson, L. (2011). The Delivery of Video-Based Performance Analysis by England Youth Soccer Coaches: Towards a Grounded Theory. *Journal of Applied Sport Psychology,*, 16–32.

Groom, R., & Cushion, C. (2005). Using of Video Based Coaching With Players: A Case Study. *International Journal of Performance Analysis in Sport*.

Groom, R., Cushion, C., & Nelson, L. (2011). The Delivery of Video-Based Performance Analysis by England Youth Soccer Coaches; Towards a Grounded Theory. *Applied Sport Psychology*, 16-32.

Groves, M. (2011). Resisting the globalization, standarization and rationalization of football: my journey to Bilbao. *Soccer & Society*, 265-278.

Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In N. K. Denzin, & Y. S. Lincoln, *Handbook of qualitative research* (pp. 105-117). Thousand Oaks: Sage.

Halpern, D. (2005). *Social Capital.* Cambridge: Polity Press.

Hartley, D. (2007). Organizational epistemology, education and social theory. *British Journal of Sociology of Eduction*.

Harvey, S. (2009). A study of Interscholastic Soccer Players Perceptions of Learning with Game Sense. *Asian journal of Exercise and Sports Science*, 1-10.

Harwood, C. (2008). Developmental Consulting in a Professional Football Academy: The 5C's Coaching Efficacy Program. *The Sport Psychologist*, 109-133.

Heller, H. (1988). The Advisory Service and Consultancy. In H. Gray, *Management Consultancy in Schools.* London: Cassell.

Hogarth, L. W., Burkett, B. J., & McKean, M. R. (2016). Match demands of professional rugby football codes: A review from 2008 to 2015. *International Journal of Sports Science & Coaching*, 451–463.

Høigaard, R., Haugen, T., & Johansen, B. T. (2017). Team identity in youth soccer: The role of coaches feedback patterns and use of humour. *International Journal of Sports Science and Coaching*, 697-707.

Holman Jones, S. (2005). Autoethnography: Making the personal political. In N. K. Denzin, & Y. S. Lincoln, *Handbook of qualitative research* (pp. 763-791). Thousand Oaks: Sage.

Horrocks, D. E., McKenna, J., Whitehead, A. E., Taylor, P. J., Morley, A. M., & Lawrence, I. (2016). Preparation, structured deliberate practice and decision making in elite level football: The case study of Gary Neville (Manchester United FC and England). *Sports Science and Coaching*, 673-682.

Hu, S., & Kuh, G. D. (2002). Being (Dis)engaged In educationally Purposeful Activities:The Influences Of Student And Institutional Charactarisitcs. *Research in Higher Education*, 555-575.

Hughes, M. (2015). An overview of the development of notational analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 54-87). Oxon: Routledge.

Hughes, M. (2015). Analysis of notation data: reliability. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 169-179). Oxon: Routledge.

Hughes, M. (2015). Examples of notation systems. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 135-168). Oxon: Routledge.

Hughes, M. (2015). How do we design simple systems? How to develop a notational system. In M. Hughes, *Essentials of Performance Analysis* (pp. 124-132). Oxon: Routledge.

Hughes, M. (2015). Sports Analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 113-123). Oxon: Routledge.

Hughes, M. D., & Bartlett, R. M. (2002). The use of performance indicators in performance analysis. *Journal of Sports Sciences,*, 739 - 754.

Hughes, M. D., & Bartlett, R. M. (2015). The use of performance indicators in performance analysis. In H. Mike , & I. Franks, *Essentials of Performance Analysis* (pp. 89-112). Oxon: Routledge.

Hughes, M., & Bartlett, R. (2015). What is Performance Analysis. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 18-28). Oxon: Routledge.

Hughes, M., & Franks, I. (2005). Analysis of passing sequences, shots and goals in soccer. *Journal of Sports Sciences*, 509 – 514.

Hughes, M., & Franks, I. M. (2015). *Essentials of Performance Analysis in Sport 2nd Edition.* Oxon: Routledge.

Hughes, M., & Franks, I. M. (2015). What is Performance Analysis? In M. Huges, & I. M. Franks, *Essentials of Performance Analysis* (pp. 18-28). Oxon: Routledge.

Iacono, J., Brown, A., & Holtham, C. (2009). Research Methods - a Case Example of Participant Observation. *Electronic Journal of Business Research Methods*, 39-46.

Johnson, D. W., & Johnson, R. (1985). Classroom conflict: Controversy versus debate in learning groups. *American Educational Research Journal*, 237-256.

Johnson, D. W., Johnson, R., & Smith, K. A. (1991). *Cooperative learning: Increasing college faculty instructional productivity.* WAshington DC: The George Washington University, School of Education and Human Development,.

Johnson, D. W., Maruyama, G., Johnson, R., Nelson, D., & Skon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. *Psychological Bulletin*, 47-62.

Johnston, R. D., Gabbett, T. J., & Jenkins, D. G. (2015). Influence of Number of Contact Efforts on Running Performance During Game-Based Activities. *International Journal of Sports Physiology and Performance*, 740 -745.

Jones, L., Evans, L., & Mullen, R. (2007). Multiple Roles in Applied Setting: Trainee sport Psychologist, Coach and Researcher. *The Sport Psychologist*, 210-226.

Jones, L., Evans, L., & Mullens, R. (2007). Multiple Roles in an Applied Setting: Trainee Sport Psychologist, Coach and Researcher.

Jones, R. (2009). Coaching as caring (the smiling gallery)" accessing hidden knowledge. *Physical Education and Sport Pedagogy*, 377-390.

Jones, R., Armour, K., & Potrac, P. (2004). *Sports Coaching Cultures.* New York: Routledge.

Jones, S. H., Adams, T. E., & Ellis, C. (2013). *Handbook of Autoethnography.* New York: Routledge.

Kamberelis, G., Dimitriadis, G., & Welker, A. (2018). Focus Group Research and/in figured worlds. In N. K. Denzin, & Y. S. Lincoln, *SAGE Handbook of Qualitative Research* (pp. 692-716). Los Angeles: SAGE publications.

Knowles, Z., & Gilbourne, D. (2010). Aspiration, Inspiration and Illustration: Initiating Debate on Reflective Practice Writing. *The Sport Psychologist*, 504-520.

Knowles, Z., Katz, J., & Gilbourne, D. (2012). Reflective Practice within Elite Consultancy: Diary Extracts and Further Discussion on a Personal and Elusive Process. *The Sport Psychologist*, 454-469.

Kovacs, L., & Corrie, S. (2017). Building reflective vapability to enhance coaching practice. *The Coaching Psychologist*, 1-12.

Krause, K. L. (2005). Engaged, inert or otherwise occupied? Deconstructing the twenty-first century undergraduate student. *Keynote Paper at the Sharing Scholarship in Learning and Teaching: Engaging Students Symposium,.* Townsville, QLD.

Krause, K. L., & Coates, H. (2008). Students' engagement in first-year university. *Assessment and Evaluation in Higher Education*, 493-505.

Krippendorf, K. (1989). Content Analysis. In E. Barnouw, G. Gerbner, W. Schramm, T. I. Worth , & L. Gross, *International encyclopedia of communication* (pp. 403-407). New York: Oxford University Press.

Kuh, G. D. (2000). In M. J. Barr, & M. Desler, *Understanding Campus Enviroments* (pp. 50-72). San Francisco: Jossey-Bass.

Kuh, G. D., Hu, S., & Vesper, N. (2000). They shall be known by what they do: An activities-based typology of college students. *J. Coll. Stud. Dev.*, 228–244.

Lago, C. (2009). The influence of match location, quality of opposition, and match status on possession strategies in professional association football. *Journal of Sports Sciences*, 1463-1469.

LaPointe, K. (2010). Narrating career, positioning identity: Career identity as a narrative practice. *Journal of Vocational Behavior*, 1-9.

Larsen, O. (2001). Charles Reep: A major Influence on British and Norwegian Football. *Soccer and Society*, 58 - 78.

Lees, A., & Robinson, M. (2015). Qualitative biomechanical analysis of technique. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 180-197). Oxon: Routledge.

Lees, A., & Robinson, M. (2015). Qualitative biomechanical analysis of technique. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 180-197). Oxon: Routledge.

Liebermann, D. G., & Franks, I. M. (2015). Video based technologies, substitution of reality and performance feedback. In H. Mike , & I. M. Franks, *Essentials of Performance Analysis* (pp. 44-53). Oxon: Routledge.

Light, R. (2004). Coaches' experiences of Game Sense: opportunities and challenges. *Physical Education and Sport Pedagogy*, 115-131.

Lindblom, H., Carlfjord, S., & Hagglund, M. (2018). Adoption of use of an injury prevention exercise program in female football: A qualitative study among coaches. *Scand J Med Sci Sports*, 1295-1303.

MacDonald, C. (2012). Understanding Participatory Action Research: A Qualitative Research Methodology Option. *Canadian Journal of Action Research*, 34-50.

MacKenzie, R., & Cushion, C. (2013). Performance analysis in football: A critical review and implications for future research. *Journal of Sports Sciences*, 639–.

Maitland, A., & Gervis, M. (2010). Goal-setting in youth football. Are coaches missing an opportunity. *Physical Education and Sport Pedagogy*, 323-343.

Manley, A. J., Greenlees, I. A., Smith, M. J., Batten, J., & Birch, P. D. (2014). The influence of coach reputation on the behavioural responses of male soccer players. *Scandinavian Journal of Medicine & Science in Sports*, 111-120.

Markula, P. (2019). What is New About New Materialism for Sport Sociology? What is New About New Materialism for Sport Sociology? *Sociology of Sport Journal*, 1-11.

McGarry, T. (2015). Probablitity analysis of notated events in sports contests: skill and chance. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 224-238). Oxon: Routledge.

McKenna, M., Cowan, D. T., Stevenson, D., & Baker, J. S. (2018). Neophyte experiences of football match analysis: a multiple case study approach. *Research In Sports Medicine*.

McLean, S., Salmon, P., Goman, A. D., & Read, G. J. (2017). What's in a game? A systems approach to enhancing performance analysis in football. *Plos One*.

Middlemas, S. G., Croft, H. G., & Watson, F. (2018). Behind closed doors: The role of debriefing and feedback in a professional rugby team. *International Journal of Sports Science*, 201–212.

Middlemas, S., & Harwood, C. (2018). No Place to Hide: Football Players' and Coaches' Perceptions of the Psychological Factors Influencing Video Feedback. *Journal of Applied Sport Psychology*, 1–22,.

Middlemas, S., & Harwood, C. (2019). A Pre-Match Video Self Modelling Intervention in Elite Youth Football. *Journal of Applied Sports Psychology*, 1533-1571.

More, K., & Cameron, E. (2015). Notational analysis of coaching behaviour. In M. Hughes, & I. M. Franks, *Essentials of Performance Analysis* (pp. 350-362). Oxon: Routledge.

Morley, D., Morgan, G., & Nicholls, A. R. (2014). Developmental Contexts and Features of Elite Academy Football Players: Coach and Player Perspectives. *International Journal of Sports Science & Coaching*, 217-233.

Nagel, R. (2002). "Reinforcement, Positive and Negative.". In *UXL Encyclopedia of Science* (pp. 1657-1659). UXL.

Neil, R., Bowles, C. R., Fleming, S., & Hanton, S. (2016). The Experience of Competition Stress and Emotions in Cricket. *The Sport Psychologist*, 76-88.

Nelson, L., Potrac, P., & Groom, R. (2011). Receiving video based-feedback in elite ice hockey: a players perspective. *Sport, education and society*, 1-22.

Neuman, L. W. (2000). *Social Research Methods: Qualitative and Quantitiatve Approaches.* USA: Allyn adn BAcon.

Occhino, J., Mallett, C., & Rynne, S. (2013). Dynamic Social Networks in high Performance Coaching. *Physical Education and Sport Pedagogy*, 90-102.

O'Donoghue, P. (2015). *An Introduction to Performance Analysis of Spor.* Oxon: Routledge.

Oxendale, C. L., Twist, C., Daniels, M., & Highton, J. (2016). The Relationship Between Match-Play Characteristics of Elite Rugby League and Indirect Markers of Muscle Damage. *International Journal of Sports Physiology and Performance*, 515 -521.

Peachey, J. W., Bruening, J., Lyras, A., & Cunningham, G. B. (2015). Examining Social Capital Development Among Volunteers of a Multinational Sport-for-Development Even. *Journal of Sport Management*, 27-41.

Perrone, D. (2010). Gender and Sexuality in the Field: A Female Ethnographer's Experience Researching Drug Use in Dance Clubs. *Substance Use & Misuse*, 717-735.

Perrone, D., Helgesen, R. D., & Fischer, R. G. (2013). United States drug prohibition and legal highs: How drug testing may lead cannabis users to Spice. *Drugs: education, prevention and policy*, 216-224.

Philaratou, A. G., & Allen, K. R. (2006). Researching Sensitive Topics through Autoethnographic Means. *The Journal of Men's Studies*, 65-78.

Pollard, R. (2002). Charles Reep (1904± 2002): pioneer of notational and performance analysis in football. *Journal of Sports Sciences*, 853± 855.

Potrac, P., & Jones, R. L. (2009). Micropolitical Workings in Semi-Professional Football. *Sociology of Sport*, 557-577.

Potrac, P., Brewer, C., Jones, R., Armour, K., & Hoff, J. (2000). Towards an Holisitc Understanding of the Coaching Process. *Quest 2000*, 186-199.

Potrac, P., Jones, R. L., & Armour, K. L. (2002). 'It's all about getting respect': The coaching behaviours of an expert English soccer coach. *Sport, Education and Society,*, 183–202.

Redwood-Brown, A. (2015). Systems of measurement in time-motion analysis - a case study of soccer. In M. Hughes, & I. M. Franks, *Esentials of Performance Analysis* (pp. 198-214). Oxon: Routledge.

Richmond, L., Dawson, B., Eastwood, P. R., & Hamilton, D. R. (2004). The effect of interstate travel on sleep patterns of elite Australian Rules footballers. *Journal of Science and Medicine in Sport*, 186–196.

Rorth, M., Tjornhoj-Thomsen, T., Cormie, P., Oliffe, J. L., & Midtgaard, J. (2019). Attitudes and Experiences of Men With Prostate Cancer Risk in the Context of Injuries Related to Community-Based Football - A Qualitative Study. *Journal of Aging and Physical Activity*, 205-212.

Røynesdal, Ø., Toering, T., & Gustafsson, H. (2017). Understanding players transition from youth to senior professional football environments: A coach perspective. *International Journal of Sports Science and Coaching*, 26-37.

Russell, J. S. (2007). *Broad internalism and internal values in sport.* Champaign, IL: Human Kinetics.

Schlechty, P. C. (2002). *Working on the work: An action plan for teachers, principals, and superintendents.* San Francisco: Jossey-Blass.

Schlechty, P. C. (2009). *Leading for learning: How to transform schools into learning organisations.* San Francisco: Jossey-Blass.

Schroeder, P. J. (2014). Changing Team Culture:The Perspectives of Ten Successful Head Coaches. *Journal of Sports Behaviour*, 63-88.

Simon, G. M., Hayden, G. C., & Fiona, W. (2018). Behind closed doors: The role of debriefing and feedback in a professional rugby team. *Sports Science & Coaching*, 201-212.

Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What can it mean and why might we do it? *Psychology of Sport and Exercise*, 1-11.

Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What it can mean and why might we do it? *Pschology of Sport and Exercise*, 1-11.

Sparkes, A. (2002). *Telling Tales in sport and physical activity: A qualitative journey.* Champaign, IL: Human Kinetics.

Sparkes, A. C. (2000). Autoethnography and Narratives of Self: Reflections on Criteria in Action. *Sociology of Sport Journal*, 21-43.

Sparkes, A. C. (2007). Making the Case for Poetic Repsresentations: An Example in Action. *The Sport Psychologist*, 170-190.

Sparkes, A. C., & Douglas, K. (2007). Making the Case for Poetic Representations: An Example in Action. *The Sport Psychologist*, 170-190.

Sparkes, A. C., & Partington, S. (2003). Narrative Practice and its Potential Contribution to Sport Pschyhology: The Example of Flow. *The Sport Psychologist*, 292-317.

Strauss, A., & Corbin, J. (1998). *Basic of qualitative research: Techniques and procedure for developing grounded theory.* Thousand Oaks CA: Sage.

Szczepanski, L. (2008). Measuring the effectiveness of strategies and quantifying players performance in football. *International Journal of Performance Analysis in Sport*, 55-66.

Templin, T. J., Sparkes, A., Grant, B., & Schempp, P. (1994). Matching the Self: The Paradoxical Case and Life History of a Late Career Teacher/Coach. *Journal in Teaching in Physical Education*, 274-294.

Tenga, A. P., Holme, I., Ronglan, L. T., & Bahr, R. (2010). Effects of Match Location on Playing Tactics for Goal Scoring in Norwegian Professional Soccer. *Journal of Sport Behavior*, 89-108.

Themen, K. (2016). Female football players in England: examining the emergence of third space narratives. *Soccer and Society*, 433-449.

Thomas, D. (2006). A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*, 237-246.

Torres, C. R. (2012). Furthering Interpretivism'sIntegrity: Bringing together Ethics and Aesthetics. *Journal of the Philosophy of Sport*, 299-319.

Traynor, M. (2014). Focus Group Research. *Nursing Standard*, 44-48.

Tveten, K. M., Arnevik, K., & Jahnsen, R. (2017). Goal-directed physical activities in group rehabilitation and impact on health-related quality of life and participation among young adults with physical disabilities – a qualitative study. *European Journal of Physiotherapy*, 131-136.

Vinson, D., Brady, A., Moreland, B., & Judge, N. (2016). Exploring coach behaviours, session contexts and key stakeholder perceptins of non-linear coaching in youth sport. *International journal of Sports Science and Coaching*, 54-68.

Watson, N., Durbach, I., Hendricks, S., & Stewart, T. (2017). On the validity of team performance indicators in rugby unio. *International Journal of Performance Analysis in Sport*, 609-621.

Wheelock, P. (2019, October 12). Unseen influence of James Milner and Liverpool's contract stance. *Liverpool Echo*. Liverpool, Merseyside, UK: Trinity Mirror.

Winand, M., Belot, M., Merten, S., & Kolyperas, D. (2019). International Sport Federations' Social Media Communication: A Content Analysis of FIFA's Twitter Account. *International Journal of Sport Communication*, 209-233.

Wood, K., Patterson, C., Katikiredddi, S. V., & Hilton, S. (2013). Harms to 'others' from alcohol consumption in the minimum unit pricing policy debate: a qualitative content analysis of UK newspapers (2005-12). *Addiction*, 578-584.

Woodman, T., & Hardy, L. (2003). The relative impact of cognitive anxiety and self-confidence upon sport performance: a meta-analysis. *Journal of Sports Sciences*, 443–457.

Wright, C., Atkins, S., & Jones, B. (2012). An analysis of elite coaches' engagement with performance analysis services (match, notational analysis and technique analysis). *International Journal of Performance Analysis in Sport*, 436-451.

Wright, C., Atkins, S., Jones, B., & Todd, J. (2013). The role of performance analysts within the coaching process: Performance Analysts Survey ‘The role of performance analysts in elite football club settings.’ . *International Journal of Performance Analysis in Sport* , 240-261.

Wright, C., Carling, C., & Collins, D. (2014). The wider context of performance analysis and it application in the football coaching process. *International Journal of Performance Analysis in Sport*, 709-733.

Wright, C., Carling, C., Lawlor, C., & Collins, D. (2016). Elite football player engagement with performance analysis. *Journal of Performance Analysis in Sport*, 1007 - 1032.

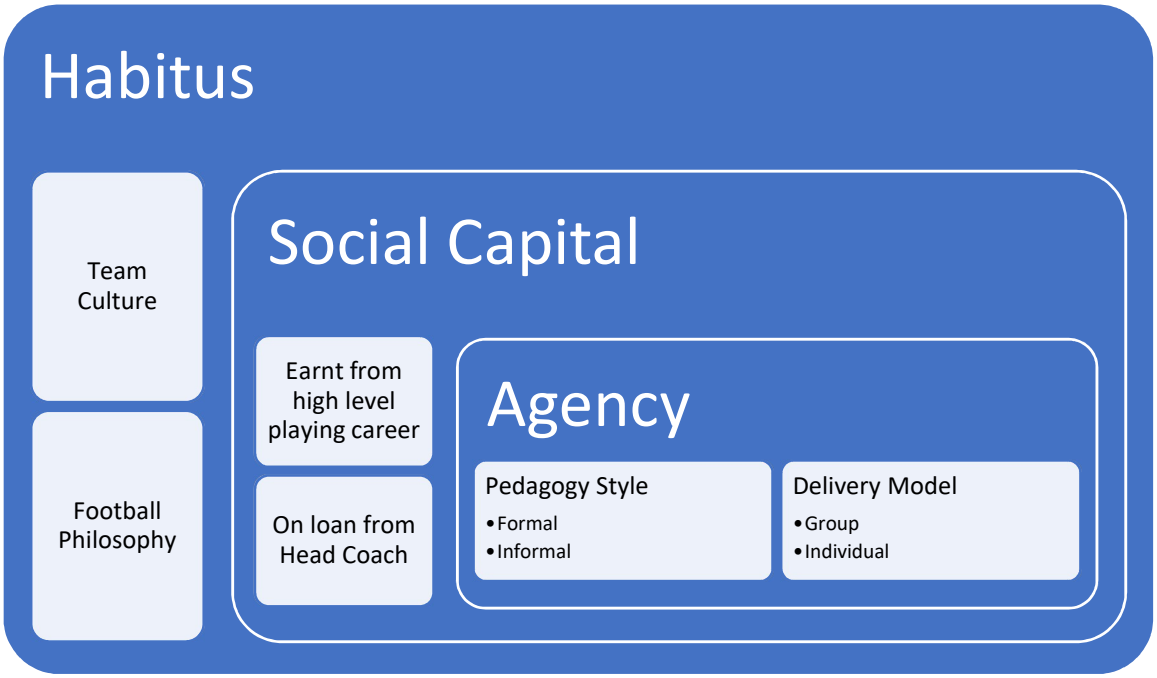


Figure 11: The structure of a New Zealand national league football club. How habitus, social capital and agency effect the pedagogic delivery of Performance Analyst

Appendix C: Ethics Panel submissions

RESEARCH ETHICS PANEL 2017

Student name(s)	STAUART MOFFATT	
Project title:	PLAYER ENGAGAMENT IN VIDEO ANALYSIS IN SEMI-PROFESSIONAL FOOTBALL.	
~~1. FULL APPROVAL~~ ~~Proceed with your research immediately~~	2. APPROVAL WITH AMENDMENTS Minor changes required by the panel via email.	~~3. REJECT / RESUBMIT~~ ~~Resubmit the research brief and address the major changes required by the panel.~~

PANEL COMMENTS ON RESEARCH PLAN:

- Good problem and relevant
- Clearly define VA / PA
- Open up the survey to a wider group (national) – players
- Look at perceptions, knowledge and use of PA rather than engagement only

PANEL COMMENTS ON ETHICS:

- Need to provide a summary of the research study and ask for inferred consent on first page of survey

ACTION POINTS (to be completed one week from research panel)

- RESUBMIT RESEARCH BRIEF ON FRIDAY 8 SEPTEMBER 9AM
- Need to work on the academic writing in brief (i.e. turning bullet points into well-constructed paragraphs) – see Simon or Student Success for support. Moodle examples of research projects (Annalise, Nicole)

SUGGESTED RESOURCES:

- www. Surveymonkey.com – see Simon for access to ISA account/password

Signed (Academic Leader): Dr Simon Middlemas	
Date:	31 Aug 2017
Signed (Ethics chair): Richard Humphreys	
Date:	31 Aug 2017

Ethics Review Record

Student Names: Stuart Moffatt

Study Title: What does player engagement with video analysis look like? Self-review of practice as a coach/performance analyst in the New Zealand National Women's League team and New Zealand National Men's League.

1. Have the researchers addressed issues for Maori?

Yes ☑ **No**

I understand consultation has occurred prior to this being submitted, ideally that should be documented in this document.

2. Have they undertaken Kaitohutohu **consultation?**

Yes ☑ **No**

but I understand that there is a standard consultation process for all student projects – it just has not been documented in this application.

3. Are there any vulnerable participants being researched

Yes ☑☒ **No ☑☒**

and have issues around inclusiveness been addressed?

Yes ☑☒ **No ☑☒**

4. Does the study include any contentious methods (e.g. interviews, questionnaires where subjects could be identified?)

Yes ☑☒ (outline below) **No** ☑☒

Outline of contentious methods/issues:

- ~~Age of players not identified – but seems young as mention parents can be present if focus groups/interviews~~
- ~~Right to withdraw at any point, when there needs to be a set date.~~
- ~~Recruitment – how will the researcher ask people to be involved in their study- there should be a gatekeeper so there is less sense of obligation to say yes to the 'coach"~~
- These concerns have been assayed by the updated submission sent received on the 16th October 2018

Controls that have been set in place to ensure ethical practice (e.g. risk assessment, participant info sheet, consent form, warm-up):

5. Are you satisfied that the researchers have managed their contentious methods and the study can proceed?

Yes ☑☒ **No** ☑☒ (outline below)

Modifications required before study commences (these will be communicated to the student):

- ~~Age of players not identified – but seems young as mention parents can be present if focus groups/interviews~~
- ~~Right to withdraw at any point, when there needs to be a set date.~~
- ~~Gatekeeper or recruiter to request participation in focus groups or interviews (clarify which)~~
- These concerns have been assayed by the updated submission sent received on the 16th October 2018
-

Appendix D: Participant Information Sheet

Your letterhead

Participant Information Sheet

Study title: A comparison of player engagement with Video Analysis in a New Zealand National Women's League team and New Zealand National Men's League team.

Locality: Dunedin,

Ethics committee ref.:

Lead investigator:

Contact phone number:

You are invited to take part in a study on Player Engagement with Video Analysis in Football. Whether or not you take part is your choice. If you don't want to take part, you don't have to give a reason, and it won't affect the care you receive. If you do want to take part now, but change your mind later, you can pull out of the study at any time.

This Participant Information Sheet will help you decide if you'd like to take part. It sets out why we are doing the study, what your participation would involve, what the benefits and risks to you might be, and what would happen after the study ends. We will go through this information with you and answer any questions you may have. You do not have to decide today whether you will participate in this study. Before you decide you may want to talk about the study with other people, such as family, whānau, friends, or healthcare providers. Feel free to do this.

If you agree to take part in this study, you will be asked to sign the Consent Form on the last page of this document. You will be given a copy of both the Participant Information Sheet and the Consent Form to keep.

This document is 4 pages long, including the Consent Form. Please make sure you have read and understood all the pages.

What is the purpose of the study?

- *The study will be a comparative study of levels of player engagement with Video Analysis in Football between the Men's and Women's teams of the same club during the same season. The study could lead to recommendations for best practice or illuminate further areas of study.*
- *The study is auto-ethnographic in nature. This means that the author is observing and reflecting on his relationship to the comparative groups recognizing that he is an actor in the activities and that he is studying himself as an interacting member of the group, in this case the football club.*
- *The study is part of a master's in applied science with Otago Polytechnic.*
- *The study will be owned by Otago Polytechnic for New Zealand Football*
- *the study's is currently awaiting approval from the ethics committee*

What will my participation in the study involve?

- *You have been chosen as you are a member of the Southern United Senior Men's or Senior Women's squad for the 2018/19 season.*
- *Field notes from participant observation will be taken and will record verbal and physical actions between you, the researcher and other members of the football club.*
- *Your identity and all identifying factors (age, nationality) will be anonymized.*
- *There is no other expectation on the individual other than to behave and interact as normal within the group.*

What are my rights?

- *Participation is voluntary – you have the right to withdraw at any point.*
- *The participants have the right to access information about them collected as part of the study*
- *All participants will be anonymized, this includes any relating identifying factors including age, nationality. However, because of the nature of the study gender and football specific (i.e. position) factors will be retained.*

What happens after the study or if I change my mind?

- *Participants will be given copies of the paper before publication and have the right to reply or challenge whether anonymization is strong enough.*
- *The study will be comprised of field notes which will be transcribed onto hard drive. Hard drive and field notes will be physically destroyed at the end of the research period.*

Who do I contact for more information or if I have concerns?

If you have any questions, concerns or complaints about the study at any stage, you can contact:

Name, Dr Simon Middlemas *position; Masters Supervisor*
Telephone number
Email

I understand that my participation in this study is confidential and that no material, which could identify me personally, will be used in any reports on this study.	Yes ☐	No ☐
I understand my responsibilities as a study participant.	Yes ☐	No ☐
I wish to receive a summary of the results from the study.	Yes ☐	No ☐

Declaration by participant:

I hereby consent to take part in this study.

Participant's name:

Signature: Date:

Declaration by member of research team:

I have given a verbal explanation of the research project to the participant and have answered the participant's questions about it.

I believe that the participant understands the study and has given informed consent to participate.

Researcher's name:

Signature:	Date:

Appendix E: Participant consent forms

Consent Form

Your letterhead

Study title: What does player engagement with video analysis look like: Self-review of practice as a coach/performance analyst in the New Zealand National Women's League team and New Zealand National Men's League.

Ethics committee ref.:

Lead investigator: **Stuart Moffatt** 0274291628

I consent to be identified in the study.	Yes ☐	No ☐
I understand that if I refuse to consent to identification in the study, my participation in this study is confidential and that no material, which could identify me personally, will be used in any reports on this study.	Yes ☐	No ☐
I understand my responsibilities as a study participant.	Yes ☐	No ☐
I wish to receive a summary of the results from the study.	Yes ☐	No ☐

Declaration by participant:

I hereby consent to take part in this study.

Participant's name:

Signature:	Date:

Declaration by member of research team:

I have given a verbal explanation of the research project to the participant and have answered the participant's questions about it.

I believe that the participant understands the study and has given informed consent to participate.

Researcher's name:	Participant's name:
Signature:	Date:

Declaration by participant's parent if participant under 18**:**

I hereby give parental consent for my child to take part in this study.

Parent's name:	Participant's name:
Signature:	Date:

Declaration by participant's parent if participant under 18**:**

I understand that I have the right to be present in a Focus Group or interview that my child is present in.

Parent's name:	Participant's name:
Signature:	Date:

Appendix F: Initial ethics application including Kaitohutohu engagement and role of secondary supervisor as gate keeper for focus groups and keeper of confidential information

Applications must be submitted to:

- Otago Polytechnic Research Ethics Committee: Administrator at sport@op.ac.nz (in a **single** Word document format or PDF)

For assistance with filling out this form contact:

Your research supervisor or course leader

Please note that this process cannot proceed unless you can provide in this application a record of your engagement with the Kaitohutohu Office

- **Your application will not be processed unless you have provided in the application a record of your engagement with the Kaitohutohu Office.**
- **Your application must be written in language that will be understood by a layperson with no expert knowledge in your field.**
- **Explanations of such terms as potential harm, underage, vulnerable participants, anonymity and confidentiality are provided in the Otago Polytechnic Research Guidelines. Please use this format when preparing your application.**
- **The Information Sheet and Consent Form must be appended to this application along with your research proposal.**

Forms and Appendices to be included

Include here the Information Sheet and Consent Form.

You may also include other forms and letters that are part of your project..
(Remember that the whole application is to be submitted as a single Word document.)

Suggestions as to further information you *might* include:

- Letters of permission to access specific information or employees
- Letter of invitation to participate
- Reminder letter to return survey
- Letter saying you have enough people
- Confidentiality agreements that e.g. your transcriber will sign
- The survey form participants will complete
- The recruitment poster or information

Name

Stuart Moffatt

Email

Stuart@footballsouth.co.nz

Title of Project

What does player engagement with video analysis look like? Self-review of practice as a coach/performance analyst in the New Zealand National Women's League team and New Zealand National Men's League.

Commencement Date

September 2018

Completion Date

March 2019

Research Question and objectives

What you hope to achieve by this research

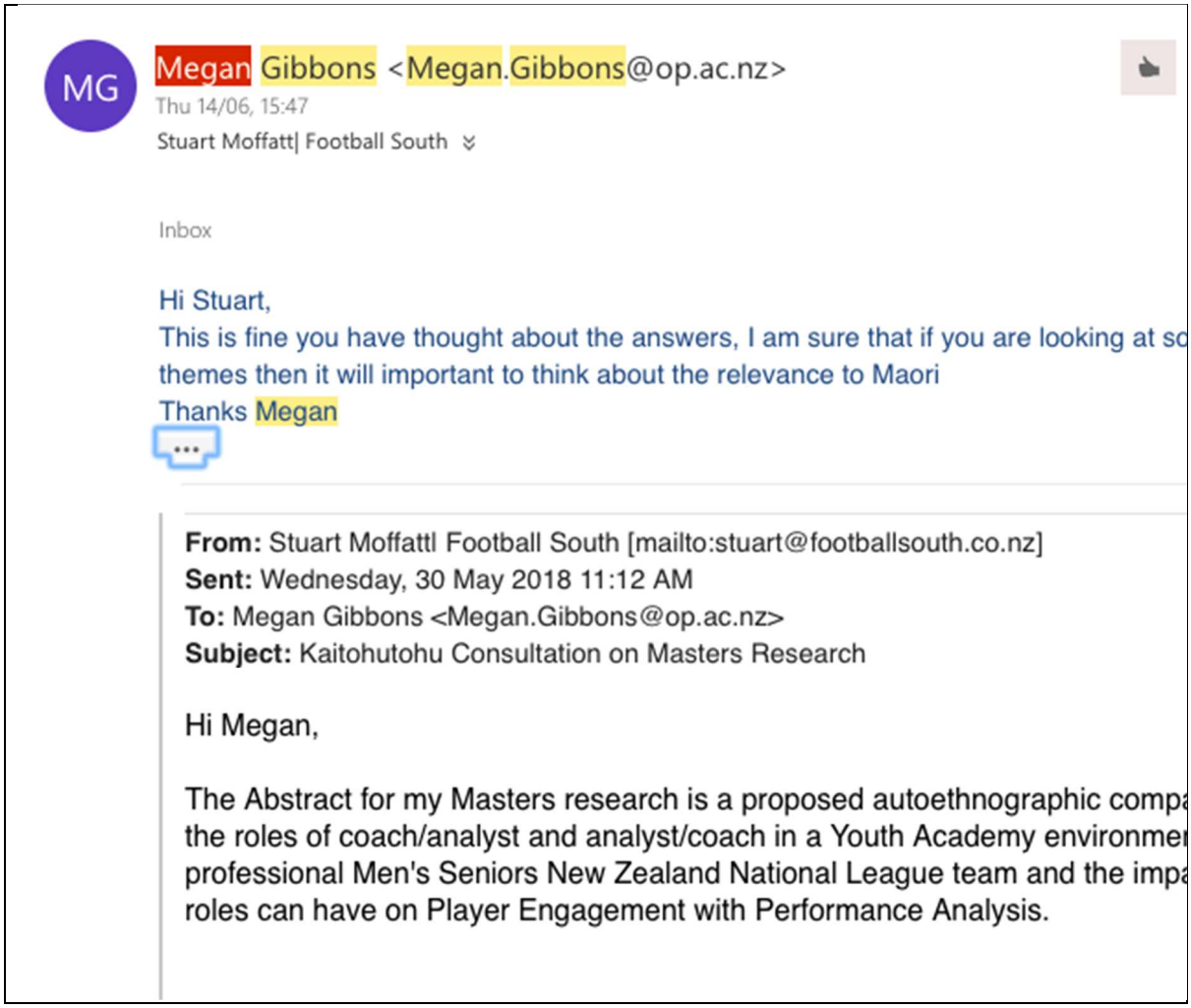
By using a mixed methodology to study my own self practice it's hoped to show what best practice could look like after an Action Research Cycle in the New Zealand Football National League.

ETHICAL CONCERNS

In the following section you must explain clearly and succinctly how you have addressed these issues:

Treaty considerations: All research areas undertaken in New Zealand are of interest to Maori. Please provide a summary of areas in your research that are of significance or of concern for Maori. Please include appropriate documentation of your consultation with the Kaitohutohu Office.

Below is the transcript of an email to Dr Megan Gibbons of the Kaitohutohu office preceded by screenshots of the email.



MG

Megan Gibbons <Megan.Gibbons@op.ac.nz>

Thu 14/06, 15:47

Stuart Moffatt| Football South

Inbox

Hi Stuart,
This is fine you have thought about the answers, I am sure that if you are looking at sc
themes then it will important to think about the relevance to Maori
Thanks Megan

From: Stuart Moffattl Football South [mailto:stuart@footballsouth.co.nz]
Sent: Wednesday, 30 May 2018 11:12 AM
To: Megan Gibbons <Megan.Gibbons@op.ac.nz>
Subject: Kaitohutohu Consultation on Masters Research

Hi Megan,

The Abstract for my Masters research is a proposed autoethnographic compa
the roles of coach/analyst and analyst/coach in a Youth Academy environmer
professional Men's Seniors New Zealand National League team and the impa
roles can have on Player Engagement with Performance Analysis.

From: Stuart Moffattl Football South [mailto:stuart@footballsouth.co.nz]
Sent: Wednesday, 30 May 2018 11:12 AM
To: Megan Gibbons <Megan.Gibbons@op.ac.nz>
Subject: Kaitohutohu Consultation on Masters Research

Hi Megan,

The Abstract for my Masters research is a proposed autoethnographic compar
the roles of coach/analyst and analyst/coach in a Youth Academy environment
professional Men's Seniors New Zealand National League team and the impac
roles can have on Player Engagement with Performance Analysis.

- The research is not being conducted by Maori.

- The research will involve observations of interaction between the author
and coaches within New Zealand as it is therefore likely that some of the
coaches will be Maori.

- It is not known in advance whether the research will prove to be of specif
relevance to Maori. As an autoethnographic study the participant observa
the study could *potentially* reveal something of the nature of the prevale
themes within modern New Zealand regarding ethnicity and identity. In t
study could be said to be *potentially* of relevance to Maori.

- Therefore I cannot predict whether or not the research might prove to be
Maori, but I can ensure you that as a researcher my work will be conduct
of partnership as expressed in the Treaty.

Kind Regards,

Stuart

Hi Stuart,
This is fine you have thought about the answers, I am sure that if you are looking at socio-cultural themes then it will important to think about the relevance to Maori
Thanks Megan

From: Stuart Moffatt| Football South [mailto:stuart@footballsouth.co.nz]
Sent: Wednesday, 30 May 2018 11:12 AM

To: Megan Gibbons <Megan.Gibbons@op.ac.nz>
Subject: Kaitohutohu Consultation on master's Research

Hi Megan,

The Abstract for my master's research is a proposed autoethnographic comparative study of the roles of coach/analyst and analyst/coach in a Youth Academy environment and a semi-professional Men's Seniors New Zealand National League team and the impact the different roles can have on Player Engagement with Performance Analysis.

- The research is not being conducted by Maori.
- The research will involve observations of interaction between the author and players and coaches within New Zealand as it is therefore likely that some of these players and coaches will be Maori.
- It is not known in advance whether the research will prove to be of specific interest or relevance to Maori. As an autoethnographic study the participant observation nature of the study could *potentially* reveal something of the nature of the prevalent socio-cultural themes within modern New Zealand regarding ethnicity and identity. In this respect the study could be said to be *potentially* of relevance to Maori.
- Therefore, I cannot predict whether or not the research might prove to be of benefit to Maori, but I can ensure you that as a researcher my work will be conducted in the spirit of partnership as expressed in the Treaty.

Kind Regards,

Stuart

Cultural considerations: In what ways, if relevant, have the cultural concerns of groups other than Māori been considered? Summarise the results of the conversations.

As a study of my own delivery of practice I will strive to understand the cultural concerns of those participants I am delivering to. It's a small group of players and although there are many from different national and cultural backgrounds, I will be analysing my delivery in these circumstances and using the Action Research Cycle to measure interaction and engagement over the period of the study. It is not considered that a written formal consent form is required for this part of the research and participants will be informed that the author is doing masters level self-reflective research on their own practice. They will be informed, verbally, that they will be de-identified, how that could happen. They will be given the right to withdrawal and explained that they have the right to view material and have the right to reply.

Discussion with FG and Interviews and then further discussion with Critical Friends will include cultural questions. Outside assistance from cultural groups will be sought if required under this criterion (i.e. FG, IV and Critical Friends cannot offer insight). For this part of the study

Vulnerable Participants: Explain clearly and succinctly how you have addressed questions of imbalances of power. These may include the use of vulnerable populations (See under-age, patients, clients, students, prisoners, or people who do not have the capacity to make informed decisions). Explain clearly how you have addressed the issue that such participants may, in different ways, not have the freedom of choice to participate fully.

As the study is largely a self-reflection on own practice, the power imbalance is that of player and coach.

Therefore, during the focus group and interview stage a gatekeeper will be employed to recruit players. The Lead Supervisor will be the gatekeeper as he is outside of the industry. This will avoid the power relationship between coach and player leading participation.

In Woman's Football 15 is the age requirement to play senior level football. This is 16 in senior men's football. These participants will require parental permission to be interviewed and be in the FG's and the have the right to have a parent present in interviews and Focus Groups. It is estimated that there are possibly 3 women's players and 1 men's player who might be in this age group in the two squads. The rest of the squads are 18 and over.

Therefore, the age group of players covered in this study is 15 and over.

The use of personal information: Explain whether the data collected will be anonymised, remain confidential, or be used in an identifiable fashion. Explain how it will be stored and disposed of at the completion of the research.

All participants will be de-identified. This will be done through the use of hidden individual responses and also through ethnographic-fiction and or narrative vignettes.

All data will be stored on a hard drive and the hard drive will be destroyed at the end of the research by the lead supervisor, Dr Simon Middlemas.

The right of withdrawal will be on the participant consent sheet and participants will be reminded of this constantly through process. The time limit of the right to withdrawal will be 14 days after the collection of data.

The consent sheet will say that the study is owned by Otago Polytechnic for New Zealand Football.

Informed consent: Attach the consent form to this application. Explain briefly how the consent form covers the following issues:

- In what ways have you advised participants of the ways in which their material will be used?
- Will the data be identifiable? Anonymised? Confidential?
- Will there be possible publication?
- The length of accessibility – how long will the data be accessible for?
- How will the data be stored?
- Have you covered the participant's ability to withdraw from the project?
- Does the form tell the participants what the research is and who it is for? ie: who owns it and who will receive the final report?

It is not considered that a written consent document will need to be signed and received by participants for the part of the study that is autoethnographic.
Auto-ethnographic is the study of the self and the selfs interaction with a group, in this case the football club.
It will be explained that the author is conducting masters level research on their own practice within video analysis.
It will be explained that they have the right of withdrawal and the right to refuse to participate. This will be mentioned at the first video analysis sessions each individual attends.
The methodology and the intention of the work will be transparently explained.
Truth and integrity will be maintained through thick descriptions, verbatim quotes in the first instance, follow up questioning and right to reply in the second instance.
The second part of the mixed methodology will involve Focus Groups and informal interviews. These will be centered on the players as the focus group and the coaches as informal interviews. For this there will be a consent form and there will be provided an information sheet (see attached). Parental consent will be sought for players between 15 and 18 years of age.
A gate-keeper will be used for recruitment to the focus groups and for further interviews (if required). The gate-keeper will be the lead supervisor of the study, Dr Simon Middlemas.

Potential harm: Potential harm such as physical harm, environmental harm, emotional harm, or harm to reputation can occur to the participant, the researcher, and institutional bodies associated with the research. Identify issues of potential harm and explain how you have addressed these.

Areas of potential harm of concern are in the area of truth and integrity. I will need to be able to show players what I have in my field notes as having said. They will need the right to reply and modify this. Auto-ethnography is a double narrative. The authors narrative and the narrative of the participants. So careful checking of field notes with players is required.
Also, the danger of exclusion. Whose comments do I leave out? Do I leave out someone's actions? Was there someone in the room I forgot was there?
Need to be careful to verify with participants my field notes, cross check who was where when what was said. Be careful not to embellish or downplay.
Use of ethnographic fiction to ensure anonymity, facts can change but underlying truth must remain.

Appendix G: Ethics Committee Letter of approval

7 November 2018

Stuart Moffatt
143 Moturata Road
RD1
Brighton 9091

Dear Stuart

Ethics: What does player engagement with video analysis look like?: Self-review of practice as a coach/performance analyst in the New Zealand National Women's League team and New Zealand National Men's League.

Thank you for your application.

We agree that you have addressed all of the issues we had concerns around and have approval to proceed with your research.

We wish you well with your study and remind you that at the conclusion of your research you should send a brief report with findings/conclusions to the Research Ethics Committee.

Yours sincerely

Hayden Croft
Head of School

Otago Institute of Sport & Adventure
Private Bag 1910
Dunedin 9054
Freephone 0800 762 786
Phone +64 3 479 3675
Fax +64 3 470 7790
sport@op.ac.nz
www.otagopolytechnic.ac.nz