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Exploring the Influence of Video-Based Feedback Sessions with a Female College Football Team

Andrew Crawford Manners

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Exploring the influence of video-based feedback sessions with a female college

football team

By

Andrew Crawford Manners

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Instructional Systems and Workforce Development
in the Department of Instructional Systems and Workforce Development

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Exploring the influence of video-based feedback sessions with a female college

football team

By

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The purpose of this study was to understand how female amateur (college) developmental level football players perceived and responded to video-based feedback sessions during their athletic training and competition. A purposeful sample was used to select 5 participants. 2 research questions were asked to explore how 5 different formats of video-based feedback sessions influenced the participants during the coaching process. The researcher was the instrument used for collecting data and this included semi-structured interviews, participant observation and a journal (personal document). Replication logic was utilized for the multiple case study research design. The trustworthiness of the study was enhanced using prolonged engagement in the field, thick description, triangulation, purposeful sampling, field notes and a reflexive journal.

A cross-case analysis of the data revealed 3 major themes. These were: (a) learning, (b) motivation, and (c) barriers to implementing coaching points. The findings for theme 1 revealed the participants learned from receiving video-based feedback sessions by being prepared tactically through oppositional analysis reviews, understanding the teams playing style and/or their roles and responsibilities within it,

accurately identifying personal and team areas for improvement, learning coaching points, increasing their attention to and retention of coaching points and seeing an accurate account of their performance which had contradicted what they thought during or following a performance.

The findings for theme 2 revealed viewing past individual/team successes and other sports teams' successes had a motivational and positive psychological effect on the participants. Also, the participants were motivated to increase their effort and intensity levels when receiving video-based feedback and stated video reviews should balance positive and negative clips to protect their confidence, self-esteem and motivation.

The findings for theme 3 revealed three barriers to the learning and subsequent implementation of coaching points in the coaching process. These were ineffective training sessions, life as an intercollegiate student-athlete and the psychological factors of cognitive anxiety and low self-efficacy.

Recommendations included further qualitative studies to track the nuances behind memory retention and the role self-efficacy and other psychological factors play during the learning of coaching points received from video-based feedback sessions at the developmental level of football.

DEDICATION

I dedicate this document to the memory of Dr. Dwight Hare, my doctoral committee member and dissertation director who sadly passed before the document could be finished. His guidance, words of wisdom and ability to ask the right question at the right time will stay with me forever.

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CHAPTER I

INTRODUCTION

Today, sport is big business. The revenue now generated by professional sports

clubs has become extortionate (István, Giovana, & Horaţiu, 2011). This is especially true

in the sport of football (soccer). The rise of the English Premier League (EPL) in the

United Kingdom (UK) has turned football into an attractive business proposition for

billionaire investors (Wilson, Plumley, & Girish, 2013). A football club owner in the UK

can make huge financial gains through promotion into the EPL; floating the club on an

overseas stock market; the sale of television rights; and using it promote other business

interests (Millward, 2013). For the purpose of this dissertation the word football will be

used as a synonym for soccer.

The potential financial gains of success and the potential losses from failure have

put enormous pressure on football coaches to deliver results. During the 2013-14 EPL

football season 12 of the 20 club managers were relieved of their duties making it one of

the most precarious jobs in football ("Premier League Managers Sacked," 2014). This

ruthlessness by their owners has left football coaches searching for a competitive edge to

achieve success and for many to remain gainfully employed.

In the past 40 years football coaches have turned to sport science to help them

maximize player performance and prepare teams for competition (Drust & Green, 2013).

Many are using performance analysis (PA) within their sport science departments to gain

that competitive edge, and PA has now become an important part of a coaches daily routine (Carling, Williams, & Reilly, 2005; Lyle, 2002b). Professional and amateur clubs are employing sport scientists (Hughes & Franks, 2008), and performance analysts (Bampouras, Cronin, & Miller, 2012; Wright, Atkins, Jones, & Todd, 2013) to carry out player and match analysis as part of their PA responsibilities (Carling et al., 2005; Côté, Salmela, Trudel, Baria, & Russell, 1995; Groom, Cushion, & Nelson, 2011; Groom & Nelson, 2012; Hodges & Franks, 2002; Lyle, 2002b; Nelson & Groom, 2012).

The use of PA in college sports is on the rise, especially in football (Vieyra, 2014). Many college coaches in the United States are using it to educate players (Thomas, 2012). This intervention is achieved by providing players with benchmarks for successful performances and highlighting areas for improvement such as passing completion rates. In addition coaches identify team strengths and weaknesses during PA sessions and plan future training programs from these findings (Edgar, 2013).

What is Performance Analysis (PA) in Sport?

O'Donoghue (2010) defined PA as "the investigation of actual sports performance or performance in training" (p. 2). O'Donoghue stated PA should pertain to actual sports performance as opposed to work undertaken in laboratory settings.

Hughes and Bartlett (2008) divided PA into two main components: notational analysis and biomechanical analysis. Notational analysis is the process of obtaining accurate and reliable information from sporting performance. Early attempts to analyze performance relied on tallies and shorthand symbols to code and quantify game performance. Highly computerized systems like Global Positioning Systems (GPS) are now employed to track players and balls and efficiently process match data (Carling,

Bloomfield, Nelson, & Reilly, 2008). Blaze, Atkinson, Harwood and Cale (2004) found 9 out of 10 EPL football managers who completed a questionnaire admitted to using one form of notational analysis during their coaching practices.

Hughes and Bartlett (2008) stated the application of notational analysis is used primarily in the technical and tactical evaluation of athletes, the analysis of movement, the development of performance databases, and for coach and player education. The value in obtaining objective data is crucial as research has shown coaches have limited capacity for remembering key events from competition (Franks & Miller, 1986, 1991; Laird & Waters, 2008), and many sport coaches design training programs based on objective data (Carling et al., 2005).

While notational analysis is concerned with gross movements in sport like strategy and tactics, biomechanical analysis focuses on fine motor skills (Hughes & Bartlett, 2008). This type of analysis is aimed at improving individual technique by identifying features of good performance, and by comparing individual techniques potential injuries can be avoided. Additionally, the physiological and psychological demands of sport are identified through biomechanical analysis and coaches consider this information when managing athletes at different stages of their career stage.

Although PA is primarily viewed as an objective way of recording sporting performance, Nelson and Groom (2012) argued sporting performances can be subjectively analyzed and still be regarded as PA. Nelson and Groom used a hypothetical dialogue between a notational analyst, traditional coach, and a pragmatic educator to explore the merits of using objective and subjective analysis of sporting performance in a practical sense. They presented several arguments for the inclusion of subjective analysis

in PA, which included the importance of coaches incorporating contextual variables into the analysis, to provide athletes with an "interdisciplinary assessment that takes a multitude of factors into consideration" (p. 696).

History of PA in Sport

Evidence of PA in sport can be found as early as 1907 in rugby and later in dance in 1948 with the creation of the Labanotation system to record human movement (O'Donoghue, 2010). In the United States, basketball and American football coaches used coded notes to analyze sport performance in the 1960's (Carling et al., 2005). Other sports followed suit, with PA reaching tennis, squash, and wrestling in the 1970s, and volleyball, field hockey, rugby union, and Australian Rules football in the 1980s (Hughes & Franks, 1997). Today, almost every sport imaginable has a PA system devoted to analyzing its athletes.

According to Pollard (2002), the roots of analyzing performance in football can be traced back to the 1940s with Charles Reep, a former Wing Commander in the British Royal Air Force (RAF). Reep and Benjamin (1968) published the first paper on football after analyzing over 2000 English football league matches over a 25-year period. Their findings revealed it takes on average 10 shots to produce a goal, with 50% of these stemming from one pass or less, or 80% coming from three or less passes. Following his retirement from the RAF, Reep was employed by Sheffield Wednesday football club as the first full-time performance analyst in football (Pollard, 2002).

Reep has influenced many football coaches, past and present including: Stan Cullis, manager of Wolverhampton Wanderers football club from 1934 to 1947; Graham Taylor who became English national team manager in 1990; and Charles Hughes, who

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was the assistant director of coaching for the English Football Association (FA). These coaches, as well as many others, are thought to have used Reep's findings to shape their own playing style, albeit direct approaches which have received much criticism (James, 2009).

The Use of Video-Based Feedback Sessions in Sport

Athletes learn and subsequently perform sporting actions based on two forms of feedback. Maslovat and Franks (2008) noted that while sensory information (intrinsic feedback) prompts athletes to maintain or adjust certain actions, augmented feedback is provided by coaches so they can compare what they have done with what is desired (external feedback). Augmented feedback is provided by coaches in two main ways (Franks, 1997). First, knowledge of performance (KP) refers to feedback regarding characteristics of an athlete's performance. Second, knowledge of results (KR) refers to information delivered at the end of a skill regarding its actual outcome.

The way coaches deliver information to athletes can take on many forms with instructions and demonstrations the most often associated with effective football coaching (Hodges & Franks, 2002). Over the last 30 years football coaches have started to use a variety of information technologies to assist with the delivery of feedback, and they have become an integral part of the coaching process (Liebermann et al., 2002). The use of video to feedback PA information to athletes is commonplace among coaches and performance analysts (Groom & Cushion, 2005; Groom et al., 2011; Groom & Nelson, 2012; O'Donoghue, 2006).

Carling et al. (2005) reported 10 advantages of using video in the coaching process:

- It can be used to analyze a player's technical, tactical, physical, and psychological aspect of performance.

- It produces a permanent record of performance which can be stored, edited, re-edited, archived, and accessed anytime allowing for repeated playback during video-based feedback sessions.

- It produces reliable data which may have been missed or forgotten by a coach or player.

- Cameras can be located at specific angles to focus on a single aspect of individual or team performance.

- Video can be used in real time to support half-time or full-time talks. Specific clips can be later used by a coach during video-based feedback sessions.

- Video footage is familiar to coaches and athletes and this promotes interaction and encourages discussion. Coaches can use positive aspects of performance to increase player confidence.

- Individual movies can be produced for players to view in their own time and privacy, or as part of an agreed player performance plan.

- Examples of good performances can be captured to demonstrate to players what should be done.

- Time codes can be added to video which indexes certain actions over time, streamlining the editing process.

- Modern equipment is user friendly and video-based analysis systems have become increasingly portable, allowing coaches to access data via laptops.

PA Research in Football

Mackenzie and Cushion (2012) critically reviewed the existing PA research literature in football and discovered a prevailing use of research methods which used "predictive and performance controlling variables" (p. 1). Their review analyzed 60 articles which spanned a 24-year period from 1986 to 2010. Of the 60 articles, 44 focused on the technical analysis of football performance with the remaining articles analyzing the physical aspects. Mackenzie and Cushion found the majority of these articles to be

simple and descriptive, often analyzing variables in isolation and neglected to add contextual information to the studies.

Of the 44 articles which used notational analysis to analyze technical aspects of performance 81% did not account for the effects of opponents, 70% did not account for match location, and 55% did not account for the location on the pitch where events occurred (Mackenzie & Cushion, 2012). Similarly, of the articles which investigated the physical aspects of performance, 80% did not account for the opposition and 87% did not account for match location. Although the lack of contextual information was widespread among the review, researchers attempted to draw applied science conclusions from basic science investigations, even though the applicability of the findings was questionable.

Mackenzie and Cushion (2012) also suggested there are major methodological issues with the existing PA literature base. First, there is evidence to suggest previous research has used insufficient sample sizes. Of the 44 technical articles, 19 made general claims using data from only one football tournament. Also, only 10 of the 44 technical articles analyzed more than 100 games when a full season could span a total of 360 games and of the 33 articles which investigated less than 100 games 22 used less than 36 games to analyze their results. In the same sense 56% of the articles relating to physical performance used less than 50 athletes in their investigations. Second, there is a lack of consistency with operational definitions. It was discovered that 79% of the articles did not fully define variables making it difficult for academics to compare or replicate studies.

Taking these limitations into account Mackenzie and Cushion (2012) argued future research should be more rigorous in its design, and special attention should be devoted to:

1. The nature of the competition that is to be investigated.

2. Providing statistical justification for the sample size.

3. Context to the sample used (i.e., location, period of season, opposition faced etc.).

4. Comprehensive and published operational definitions for the variable(s) under investigation and ensure specific contextual information is included.

5. When researching the physical aspects of football performance, giving consideration to previous research in order to better inform the thresholds adopted to ensure research that is comparable. (pp. 17-18)

Mackenzie and Cushion (2012) concluded the existing PA literature base is inadequate and has yet to highlight "the intricacies and dynamics relating to PA as a form of feedback" (p. 18). They suggested alternative approaches should be conducted to address the analysis and learning-performance link since "little research has investigated PA from a learning perspective" (p. 18). This includes "PA as an evaluative feedback tool" (p. 18) and the "learning processes coaches and players engage in during and post PA exposure" (p. 18).

In the same sense, Nelson, Potrac, and Groom (2011) suggested future inquiries should adopt ethnographic and longitudinal approaches to further recognize the intricacies, contradictions, and complexities that are an inherent part of the learning process between coaches and athletes during video-based feedback sessions. They suggested this might be usefully supplemented by in-depth interviews exploring the

perceptions, experiences and intension of those engaging in video-based feedback sessions (p. 19).

In support, Mackenzie and Cushion (2012) called for future research endeavors to utilize data collection methods which could "be beneficial in developing new knowledge and understanding such as more naturalistic and qualitative methods such as case studies, ethnography, interviews and mixed methods approaches" (p. 19). These research methods, they argued, would help bridge the research gap which exists between describing PA and its delivery to athletes, and its effect on athlete learning and performance.

Furthermore, despite evidence of social and cultural factors impacting PA delivery, "PA research appears to have largely ignored these influences" (Mackenzie & Cushion, 2012, p. 18). To address these gaps in the literature, Mackenzie and Cushion (2012) suggested future studies could focus on PA from the context of the environment in which it is delivered, thus understanding how PA impacts learning. This suggestion is supported by Groom et al. (2011) who found the coach-athlete relationship to be of central importance when considering athlete learning.

Groom and Nelson (2012) have argued it is not clear how coaches should incorporate video-based technology into coaching practice. Since there has been little research on the connection between video-based feedback and athlete learning they suggested research is needed to consider the interrelated elements of pedagogy (learning, context, coaching and subject matter) to get a better understanding of how video technology can assist with athlete learning.

In addition, Groom and Nelson (2012) have stated since experimental studies in golf have failed to show significant increases in learning and performance (Bertram, Marteniuk, & Guadagnoli, 2007; Guadagnoli, Holcomb, & Davis, 2002), and were conducted outside of the complex and power dominated real world of coaching; future research should examine the practical use of technology in the coaching process including the contextual factors which impact coaching and the subsequent learning by the athlete. Consequently, Groom and Nelson (2012) suggested using systematic observation, conversational analysis, interviews, and a mixed-methods research design to explore how athletes learn from video-based feedback sessions.

Groom and Nelson (2012) stated systematic observation involves tallying pre-determined categories of behavior and this could be used to examine the interactions between a coach and athlete during video-based feedback sessions. In particular, using Flanders Interactive Analysis Categories (FIAC) system (Flanders, 1970) to record data, such as statistics, ratios of talk, and certain behaviors researchers could highlight how coaches and athletes interact within the coaching process.

Groom and Nelson (2012) suggested using a conversation analysis research technique to examine how coaches and athletes talk to each other, including the interruptions, pauses, and intonations that exist during the communication process. They suggested it could shed light on how coaches and athletes take turns when talking, and how topics of conversation are controlled. The data collected from such analyses could inform coaching practices, coach education, and coaching interventions.

Groom and Nelson (2012) stated interviews "provide an effective means of gaining insight into athletes' experiences, thoughts, and perceptions regarding their

receiving of video-based feedback" (p. 12). This type of approach would reveal why coaches act the way they do and how athletes respond to coaching interventions through the use of video.

Finally, James (2009) noted the current literature base in PA in football is heavily weighted with quantitative studies. A clear need exists for more qualitative research in PA in football which will help academics and practitioners better understand the "socio-pedagogical complexities of video-based coaching practice" (Groom & Nelson, 2012, p. 14). This includes the use of interviews, personal documents, and participant observation to collect PA research data (Groom & Nelson, 2012; Hughes & Franks, 2008; O'Donoghue, 2010; McGarry, O'Donoghue, & Sampaio, 2013).

Statement of the Problem

PA research has focused primarily on how coaches and performance analysts use video-based PA in the coaching process (Groom et al., 2011), leaving a dearth of literature pertaining to athlete's perception and response to receiving it. As a result, "very little is known about how athletes experience, understand, and subsequently respond to their coaches' application of this educational technology" (Nelson et al., 2011, p. 2). Mackenzie and Cushion (2012) stated PA research in football has failed to include contextual factors, and left research gaps in opposition analysis, in applied settings and the impact video-based PA has on athlete learning and information retention.

Significance of the Problem

The majority of research in PA in football has been conducted by academics leaving a literature base lacking anecdotal evidence (James, 2009). It is critical football

coaches understand how their players perceive and respond to their delivery of video-based feedback sessions during training and competition. By doing so, researchers and practitioners can better understand "the impact PA has on athlete learning and information retention as part of performance feedback" (Mackenzie & Cushion, 2012, p. 2). Understanding how PA impacts learning and information retention could inform coaches on how to effectively deliver video-based feedback sessions and optimize athlete learning within the coaching process.

Purpose of the Study

Mackenzie and Cushion (2012) reviewed the PA in football literature and concluded there is a clear lack of research using qualitative research methods in PA in football. Furthermore, there has been no research which has investigated the influence of video-based feedback sessions with female football players at an amateur level in the coaching process.

The purpose of the study is to understand how female college football players perceived and responded to video-based feedback sessions during their athletic training and competition. This study will add to the sparse literature pertaining to how football players perceive and respond to video-based feedback; particularly how their perception and receiving of video-based feedback impacted their learning and performance both positively and negatively. Furthermore, it will provide a first account of how female football players perceived and responded to this form of performance feedback at an amateur (developmental) level.

Research Questions

The questions that this research study addressed are as follows:

1. How do female college football players describe and explain the influence of video-based feedback sessions on their athletic learning?

2. What factors, other than video, had a negative influence on the players' ability to implement coaching points received during video-based feedback sessions?

Limitations of the Study

The study is limited to four areas: (a) A single university located in the southeast United States, (b) A multiple case study design taken from a single National Collegiate Athletic Association (NCAA) Division 1 women's football team, (c) A single spring semester (d) Single researcher also acting as an assistant women's football coach. This has limited the study in the following ways:

1. Data collected can only be attributed to one university located in the southeast United States. According to the National Center for Education Statistics (2013) there were 2,774 public and private four-year colleges and universities in the US during the 2009-2010 academic years. Therefore the findings may not transfer to different areas or universities in the U.S.

2. Data collected can only be attributed to one multiple case study consisting of five female college football players. These participants were chosen from a single NCAA Division 1 women's football team. According to the NCAA (2013) 326 academic institutions were participating in NCAA Division 1 women's football during the 2011-2012 academic year.

3. Data collected for this study are limited to one spring semester (2012). This time of year is a non-championship segment according to the NCAA. This meant only five competition days were allocated to the team and the players were afforded two days off training every week. Additionally, the senior players who had completed their four years of NCAA athletic eligibility were excluded from training and completion and allowed to focus on their academic studies. Overall, this reduced the number of potential participants to choose for the study and the amount of time the researcher had access to them during training and competition.

4. As a researcher, I was mindful that while working as the participant's football coach I may have received answers to questions which were not entirely truthful.

Definition of Terms

For the purpose of this study, the following terms are defined:

Athletic Learning: For the purpose of this study, athletic learning is defined as any

cognitive and/or physical change to an athlete in line with Bandura's

(1986) four stages of observational learning: attention, retention, motor

reproduction and motivation.

Augmented feedback: Information received by an athlete from an external source,

usually a member of the coaching staff.

Biomechanical Analysis: The analysis of the fine motor skills associated with

sports techniques. This type of analysis is aimed at improving individual

technique by identifying features of good performance (Hughes & Bartlett,

2008).

Coaching Point(s): For the purpose of this study, coaching points are defined as

the explicit instructions I provided each player on the State University

football team during video-based feedback sessions.

Coaching Process: For the purpose of this study the coaching process is

considered any verbal or non-verbal interaction between any football

coach and the female college football players during their athletic career.

These interactions were especially part of the coaching process if there

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was an intention to increase the learning, knowledge, efficacy or
motivation of the player.

English Premier League (EPL): The highest level of professional football in
England.

English Premier League Review: For the purpose of this study, an EPL review
session is defined as the viewing of an EPL football match on video.

Flanders Interactive Analysis Categories (FIAC): A system of interaction analysis
to study what is happening in a classroom when a teacher teaches
(Flanders, 1970).

Focus X2: PA software used to objectively analyze sporting performance (Elite
Sports Analysis, 2009).

Functions of Observational Learning Questionnaire (FOLQ): An assessment tool
which is used "to measure the frequency with which athletes report
employing observational learning for a variety of different reasons, or
functions, in their respective sports" (Law & Hall, 2009, p. 264).

Individualized PA Review: For the purpose of this study, an individualized PA
review is defined as a one-on-one meeting between me and a State
University football player where coaching points were made during a
video-based feedback session.

Key Performance Indicators (KPI): The dependent variables that are measured
during an objective analysis of a sporting performance (O'Donoghue,
2010).

Knowledge of Performance (KP): Specific feedback provided by a coach to an

athlete regarding the characteristics of an athlete's performance.

Knowledge of Results (KR): Specific feedback provided by a coach to an athlete

regarding the actual outcome of sporting.

Motivational Videos: For the purpose of this study, a motivational video is

defined as a short film, produced using Microsoft Moviemaker,

comprising of edited video clips of the State University football team in

action, successful sports teams, and athletes overcoming difficulties; along

with background music, quotes, and photos shown immediately before

competition with the intention of inspiring and motivating State University

football players.

Notational Analysis: The process of obtaining accurate and reliable information

from sporting performance (Hughes and Bartlett, 2008).

Observational Learning (OL): A four-stage process to represent how humans

learn new novel behavior from watching others (Bandura, 1986).

Oppositional Analysis Review: For the purpose of this study, an

oppositional analysis review is defined as a short film produced using

Prozone Matchviewer, comprising of edited video clips of an upcoming

opponent in action; highlighting their general attacking and defending

strategy, strong and weak players, and approach to set pieces both

offensively and defensively. The review included verbal feedback from

the State University coaching staff on how we would play against the

opponent.

Performance Analysis (PA): The use of objective data and/or subjective analysis of athletic performance to analyze an individual(s) or team(s) sporting performance (Nelson & Groom, 2012).

Performance Analyst: A person who receives and analyzes PA data (written or visual) with the intention of improving individual or team performances.

Performance Feedback: A coach's evaluation to an athlete following their attempt at sporting technique, skill or decision.

Positive Self-Modeling: The viewing of oneself displaying positive actions or behaviors.

Prozone Matchviewer: A software program designed by Prozone Sports which provides opposition and post-match analysis by providing technical, tactical and video analysis from a single camera source. It provides users with a wide range of key performance indicators presented via interactive graphics and multiple layers of content, allowing instant access to every match event and linking data to video (Matchviewer, 2014).

Social Cognitive Theory (SCT): A comprehensive approach to human learning proposed by Bandura (1986) which stated "human functioning is explained in terms of a model of triadic reciprocality in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other" (p. 18).

Self-Efficacy: Defined by Bandura (1995) as "The belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2).

Team Review: For the purpose of this study, a team review is defined as a video-

    based feedback session in which edited clips of the State University

    football team and/or opponents were shown to the whole State University

    football team for the purpose of either reviewing a previous performance

    or preparing for upcoming competition.

Video-Based Feedback Session: The use of video to relay PA data to others, with

    or without verbal commentary.

CHAPTER II

REVIEW OF THE LITERATURE

This study contained three elements: the delivery of PA information through video-based feedback sessions, how female college football players received and responded to this information during their training and competition, and the coaching process which contained all of the coach-athlete interactions. This chapter will begin with a review of selective components of Bandura's (1986) Social Cognitive Theory. Following this, a review of the coaching process is presented. Next, a literature review of the delivery and receiving of PA information in sport will be presented and arranged according to the theoretical framework suggested by Groom et al. (2011). The chapter concludes with a summary.

Social Cognitive Theory

Bandura (1986) proposed a theory of learning in which a person's personal attributes (cognitive and affective), behavior and environment all interacted and influenced each other. At the time of publication it extended the existing behavioristic theories of learning by adding a social element. Two tenets of Bandura's theory are discussed here and will be used to frame the research findings: observational learning (OL) and self-efficacy.

Observational Learning

A major tenet of social cognitive theory is the concept of OL (Bandura, 1986). Bandura contended that learning occurred through observing a model and these can take the form of a live person, a verbal instructional model or a symbolic model. Live models included teachers and coaches who spend classroom or practice time demonstrating favorable behaviors. Verbal instructional models could include explanations or coaching points made by a coach to an athlete. Symbolic models included fictional or real people shown across many types of media, including video replays.

The first process of OL involved the observer attending to the modeled behavior (Bandura, 1986). This can be influenced by the modeled event itself and/or an attribute of the observer. If the behavior exhibited by the model is prominent or it evokes positive emotions then the observer is likely to hold attention for longer periods. However, attention may be diminished if the modeled behavior is infrequent, deemed too complex, or is lacking any perceived use by the observer. Needless to say, modeled behavior which is rewarded is much more likely to be sought out by the observer than those behaviors which are punished.

Bandura (1986) stated attributes of the observer can have an impact on attention. Previous life experiences may dictate what information an observer gleans from a modeled event, and how they interpret it. Their personal and cognitive abilities will "dispose them to look for some things but not others" (p. 53). Furthermore, attention will hold up further if the observer is inherently curious in the behavior, attracted to the model, or has been stirred up emotionally by the event in question.

The second process of OL included how the information is retained by the observer (Bandura, 1986). If an observer has given adequate attention to modeled behavior, the information attended to can be stored symbolically and retained for future use. If a behavior has been observed repeatedly, it is highly likely the distinct features of it have been attended to and retained with precision. Complex sequences or behaviors are reduced to manageable components either in the form of mental images (imagery) and/or verbal descriptions (language) and stored in memory. This symbolic representation is later recalled and used with a new action to replicate the modeled behavior.

The third process of OL is the observer's ability to reproduce the observed behavior (Bandura, 1986). This involved "converting symbolic conceptions into appropriate actions" (p. 63), and is achieved when the observer stores the behavior abstractly and is verbally and/or physically capable of reproducing the observed behavior. If an observer is capable of reproducing the behavior then imagining and practicing the behavior will result in improvements of the modeled behavior. Bandura (1986) stated initial attempts to reproduce a new behavior will likely include errors. However, with practice and over time, the observer will compare these attempts with his or her conception of the behavior and make successful subtle changes during future attempts.

The final process of OL is the observer's motivation to produce the observed behavior (Bandura, 1986). Bandura stated not every behavior learned from observing a model is translated into action. It takes an incentive or a motive for a person to reproduce an action. Bandura stated reinforcements and punishments can act in a way that motivates or demotivates a person to repeat an observed behavior.

Bandura (1986) stated an observed behavior is likely to be reproduced if there is sufficient incentive or motivation to do so. Bandura noted there are three incentives/motives. These are direct, vicarious, and self-produced. Direct incentives occur when an observer has a similar behavior to the modeled behavior rewarded. This will provide motivation for the observer to produce the new behavior. Bandura (1986) stated an observer is likely to repeat an observed behavior if they see a model achieve positive outcomes from exhibiting that behavior (vicarious incentive). Conversely, that behavior is likely to be avoided if the model receives unfavorable returns from performing it. Self-produced incentives included feelings of pride and satisfaction and these act as motivators, especially if the behavior is conducive to the observer's personal standards of conduct. On the other hand behavior which is deemed inappropriate or not in sync with their personal code of conduct will be rejected.

Cumming, Clark, Ste-Marie, McCullagh, and Hall (2005) conducted three studies to develop and test the reliability and validity of the Functions of Observational Learning Questionnaire (FOLQ). The questionnaire was created to "measure the cognitive and motivational functions of observational learning used by athletes" (Cumming et al., p. 221). The initial questionnaire contained 30 items taken from the Sport Imagery Questionnaire (SIQ); (Hall, Mack, Paivio, & Hausenblas, 1998), but was adapted to reflect OL as opposed to imagery.

The pool of questions represented the proposed five functions of OL (Hall et al., 1998; Paivio, 1985). The cognitive specific function was concerned with learning or performing skills. The cognitive general function referred to learning and performing strategies or executing game plans. The motivational specific function referred to

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obtaining goal-related behavior. The motivational general-arousal imagery referred to using imagery to regulate arousal levels, and motivational general-mastery imagery pertained to using imagery to focus and stay mentally tough.

Four research experts and 10 athletes tested the content validity of the initial pool of 30 questions. After making recommendations the wording and content of some items were changed but in the end all items were retained for the FOLQ. The finalized FOLQ contained seven cognitive specific items, six cognitive general items, five motivational specific items, six motivational general-arousal items, and six motivational general-mastery items.

The FOLQ was sent to 400 Canadian athletes who competed in individual sports (40%) and team sports (60%), which covered 28 different sports at five different levels of competition (recreation, club, provincial, varsity, elite). Each participant was asked to rate how often they utilized OL for the function described in each of the 30 statements.

A principal component analysis revealed 17 items of the FOLQ would be retained for future use. The results revealed athletes used OL for two cognitive functions and one motivational function. The two cognitive functions of OL were: to acquire motor skills and performance (skill function), and to develop strategy (strategy function). The motivational function of OL was to reach optimal arousal and mental state for performance (performance function). The results revealed OL was used more by athletes for its cognitive functions (skill and strategy), than its motivational function (arousal and mental state). However, neither gender nor competitive level influenced the use of OL by athletes.

The second and third studies were conducted to test the validity (concurrent validity) and reliability (test-retest reliability) of the three-factor structure of the FOLQ respectively (Cumming et al., 2005). The results confirmed the findings from the first study and "indicated that athletes were using OL for three separate and distinct functions: (1) skill; (2) strategy; and (3) performance" (p. 534).

Wesch, Law, and Hall (2007) sent the 17 item FOLQ to 642 (377 male, 265 female) recreational (n=312) and varsity (n=330) athletes competing in individual sports (n=96) and team sports (n=546) to determine how various groups of athletes differed in their use of the functions of observational learning. The results supported the initial finding by Cumming et al. (2005) that athletes used OL more for its cognitive function than its motivational function. However, there were significant differences with regard to gender, competitive level, and sport type. Males used the performance function of OL more than females and varsity athletes used all three functions of OL more than recreational athletes. On the other hand individual sport athletes used the skill function more than the team sport athletes but team sport athletes used OL more for learning strategies than individual sport athletes. Both groups did not differ in their use of the performance function of OL.

Self-Efficacy

Self-efficacy refers to a person's belief they are capable of learning or performing a specific action using the skills they possess (Bandura, 1986). What distinguishes self-efficacy from other psychological constructs like self-confidence, self-concept and self-esteem is the specificity of a task (e.g. efficacy for writing poetry). Interestingly, self-efficacy is not related to the expectations of an outcome. A person can develop high self-

efficacy for a specific task or action even if they think the end result would be poor. An example would be the expectation of a low test grade from an unfair teacher even if they felt capable of performing well on the test. Self-efficacy is independent of a value placed on learning or an action. A person can develop self-efficacy for effective studying even if they place low value on achieving high grades (Schunk, 1990). Self-efficacy has been shown to influence task choice, effort, persistence, and learning.

A person's self-efficacy is influenced by five sources of information. These include: enactive attainment, vicarious experience, verbal persuasion, physiological states (Bandura, 1986), and affective states (Schunk, 1995). Enactive attainment refers to prior achievements and is considered to be the most influencing source of self-efficacy information (Bandura, 1986). The personal nature of the experience allows for cognitive processing to occur and allows the personal capabilities of a person to weigh against the possible influence of external factors. For example an athlete's past success at a certain skill will increase efficacy while previous failures will decrease it. More efficacies are received when skills are achieved without the help from a teammate or coach.

Vicarious experiences can influence a person's efficacy. An athlete who sees a teammate (similar model) achieve positive outcomes will increase efficacy if they believe they possess the necessary skills to at least partly achieve the outcome. However, if attempts to perform the skill are unfruitful then efficacy will be reduced. Two important factors can heavily influence the efficacy of vicarious experiences. If a person is in some way doubtful of their capabilities to perform the task or have few standards to base their attempt then efficacy may be damaged.

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Athletes are frequently told by their coach they are capable of performing a

desired behavior. The boost in self-efficacy from this verbal persuasion will only occur if

the athlete has some faith in their own capabilities. Subsequent attempts at the behavior

will reduce efficacy if the end result is a poor one (Bandura, 1986).

Physiological and affective states can influence self-efficacy. A person's fitness,

fatigue, and pain levels can all work together and negatively influence efficacy feelings

(Feltz & Chase, 1998). Feelings of stress and fear associated with a task or skill are

perceived differently by performers. Previous experiences with arousal levels while

performing tasks and the circumstances surrounding the task can be inferred as a positive

or negative influence on performance. High achievers view arousal levels as facilitators

of performance whereas low achievers see it as a hindrance (Bandura, 1986).

The Coaching Process

The coaching process in sport has long been viewed as simple and unproblematic

(Jones, 2000), and mainly dependent on the behaviors of coaches who act according to

the perceived capabilities and needs of the team (Côté et al., 1995). Coaching manuals,

coaching models for the coaching process, and professional development programs

suggest coaches learn elements of good coaching practice and incorporate them into their

coaching routines (Carling et al., 2005; Cushion, Armour, & Jones, 2006). This stems

from the rationalistic belief that coaching knowledge is knowable and can be transmitted

from coach to athlete (Cushion, Armour, & Jones, 2003), and assumes coaches have all

the necessary resources to act and measure success (Jones & Wallace, 2005).

The coaching process is also known traditionally as the coaching cycle (Carling et

al., 2005) and it portrays coaching as a sequence of steps which a coach should have

command over (Jones, 2000). The cycle often begins with the analysis of an athletic performance (Maslovat & Franks, 2008), viewed live (O'Donoghue, 2010) or delayed through the medium of video (Dorwick, 1991; Franks & Maile, 1991). During this observation stage a coach will analyze and interpret the performance, objectively or subjectively (Carling et al., 2005; Nelson & Groom, 2012), before feeding the relevant information back to athletes (Maslovat & Franks, 2008). The information taken from this analysis is then used to plan future training sessions and prepare the team for the next performance (Carling et al., 2005).

Unfortunately, the coaching process is not simple and straightforward (Cushion, 2007). It includes various contextual and situational factors which influence coaching decisions and impact the interpersonal relationships which exist within it (Lyle, 2002a). Coaching, therefore, is not something to be delivered, but is an instrument to help coaches navigate through the complex and ambiguous realities of the coaching process (Cushion et al., 2006; Jones & Wallace, 2005) which include the opportunities and limitations of human interaction (Jones, Armour, & Potrac, 2002). Indeed, Jones and Wallace (2005) suggested some coaches do attempt to embrace this ambiguity and orchestrate their way through the myriad of problems and issues which arise on a daily basis.

Coaching is a complex social activity involving multiple actors, including coaches, athletes, administrators, parents, sponsors, support and medical staff, all of whom must interact and get along according to the social roles afforded or imposed upon them (Cross & Lyle, 2002; Jones et al., 2002; Potrac & Jones, 2009). Potrac, Jones and Cushion (2007) found top-level English football coaches used a mixture of instruction,

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silence, and a high ratio of praise to scold behaviors when interacting with athletes. These behaviors are thought to be a result of their "prior socialization and educational experiences" (p. 40), which, when taken into account, bring even more complexity to an already dynamic and chaotic environment (Bowes & Jones, 2006).

Football coaches have been found to develop their expertise and knowledge through experience (Sarmento, Pereira, Anguera, Campaniço, & Leitão, 2014), observing and listening to other experienced coaches (Cushion et al., 2003), reflecting on their coaching practices, attaining coaching certifications, and working to meet the needs of their athletes (Jones, Armour, & Potrac, 2003). However, securing this knowledge and a coaching position does not afford them the respect necessary to influence athletes (Potrac, Jones, & Armour, 2002); it simply provides them with legitimate power in the eyes of their athletes (Jones et al., 2003).

To attain the much needed respect and confidence of their athletes, football coaches have frequently used authoritative coaching styles as well as instructions and demonstrations to exert power and control (Potrac et al., 2002), which have sometimes led to episodes of symbolic violence (Cushion & Jones, 2006). This expert power can be a limited form of power if not used with other behaviors (Benfari, Wilkinson, & Orth, 1986). Consequently, Jones et al. (2002) found coaches will supplement expert power by challenging (nutrient power), rewarding (reward power) and punishing (coercive power) athletes during the coaching process.

Additionally, football coaches have been found to put on a front in order to preserve their social role and gain the respect and trust needed to operate efficiently (Jones et al., 2002; Potrac & Jones, 2009). The fluctuating nature of football coaching has

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seen coaches resort to political maneuvers to undermine assistant coaches (Potrac &

Jones, 2009) and use organized training sessions and educational props to earn respect

from athletes (Jones et al., 2002; Potrac et al., 2002).

The Delivery and Receiving of PA Information in Sport

Today, the analysis of performance in sport is carried out by coaches,

performance analysts or through a collaboration of both parties (Bampouras et al., 2012;

Hughes & Bartlett, 2002). Wright, Atkins, and Jones (2012) and Wright et al. (2013)

surveyed coaches and performance analysts respectively to understand how they engaged

with PA during the coaching process. Wright et al. (2012) sent an online-survey to a

stratified sample of 46 elite professional and semi-professional sport coaches in rugby

league, hockey, football, basketball, and rugby union, and found 91% completed some

type of formal match analysis.

Similarly, Wright et al. (2013) created an online questionnaire to identify the role

performance analysts played within elite football clubs. The questionnaire was completed

by 48 performance analysts of whom 32 worked in professional settings and 16 worked

in academy settings. The results revealed the performance analysts were involved in pre-

match analysis (79.2%), post-match analysis (81.3%), post-match feedback (70.8%),

produced motivational DVD's (58.3%), and scouting analysis (opposition analysis)

(54.2%). Although the analysis of performance was a joint effort, it was mainly the

coaching staff who delivered the information back to the athletes (Wright et al., 2013).

The researchers found of the 48 analysts, 72.9% stated they did not lead the video-based

feedback sessions to the athletes. The manager (head coach) (62.5%) or assistant manager

(31.3%) was responsible for this task. Wright et al. (2012) found support for this finding

by discovering coaches used video clips to deliver feedback to the whole team (86%), individual players (82%), and small groups of players (73%).

Groom et al. (2011) interviewed 14 expert English youth football coaches over a 12 month period. The purpose was "to build a theoretical framework to understand the delivery of video-based performance analysis by youth football coaches in England" (p. 16). A grounded theory methodology was used and the data collection techniques were utilized to "examine the coaches' experiences and perceptions of using video-based performance analysis in their coaching practice" (p. 18).

An inductive analysis of the data revealed central to the delivery of video-based feedback sessions was the performance, analysis, and training of the athletes, and any coaching intervention deemed necessary usually started with a video-based feedback session (Groom et al., 2011). This involved the coaches choosing a presentation format, designing the video-based session and delivering it with an outcome in mind.

Furthermore, the analysis yielded three categories which were used to construct a grounded theory of using video-based performance analysis (Groom et al., 2011). First, the contextual factors that impinged on the delivery of video-based feedback sessions included the delivery process, coaching and delivery philosophy, recipient qualities, social environment, presentation format, and the session design. Second, the delivery approach by the coaches included motivational videos, training implications, opposition analysis, performance review, performance feedback, and performance modeling. The third category constructed was concerned with the targeted outcome for a video-based session. This included a preferential change in learning, behavior, motivation or self-efficacy.

Contextual Factors

The first category constructed by Groom et al. (2011) was the contextual factors which surrounded the delivery of video-based PA. This category included six sub categories: delivery process, coaching and delivery philosophy, recipient qualities, social environment, presentation format, and session design.

Delivery process. Groom et al. (2011) discovered 14 English youth football coaches frequently used video-based feedback sessions during their coaching practices. However, Bampouras et al. (2012) found the athlete would often be left out of the PA process. The researchers conducted a case study with "a sport scientist, an international coach and a former professional athlete" (p. 470) to explore the in-practice application of PA in Tae Kwon Do, Netball, and Rugby respectively. The participants were interviewed so the researchers could understand their "introduction to performance analysis, their experiences of its use and their views regarding its effectiveness" (Bampouras et al., 2012, p. 470).

Bampouras et al. (2012) conducted an inductive analysis of their data and found recurrent and consistent themes which were used to formulate an in-practice PA model. The model revealed the coach acted as a gatekeeper and decided which information would be analyzed and delivered to the athletes. The sport scientist on the other hand worked alongside the coach interpreting the PA data. The model identified the athlete as both the object and audience of PA but someone who was purposefully excluded from the PA process by the coach and sport scientist. This was carried out for several reasons. First, they believed the athlete was incapable of dealing with a high volume of data. Second, the coach only wanted the athlete to see a limited amount of the data drawn from

the analysis. Third, the actual notation of a performance was seen as a preliminary step and not a big concern for the athlete. Only the coaching staff was to make judgments on what constituted an issue or not.

Carling et al. (2005) described the typical PA process followed in football, and it, too, excluded the athlete from the analysis of performance. Carling contended the PA process starts with a match recording using a digital or analogue camera, and the images are transferred on to a computer. The analysis is based around four factors: player, action, time and position. The actual analysis can be carried out during real time or following the completion of a match. Generally, the analyst would click on a player's name on a certain position on the field and input the action completed by the player. When every action is completed a coach or analyst can directly access every event with the click of a button. Most modern PA systems have a time code built in leaving the analyst with more time to code the actions. The results of the analysis can take many forms with the most popular being an edited video of the match based on the actions selected by a coach or analyst. Other presentation formats included tables, graphs, spatial data, and databases. This information is then used to design and deliver a video-based feedback session to the coaching staff or players.

Similarly, O'Donoghue (2006) stated the actual PA process he followed while working as a performance analyst for the Welsh Netball Association and Celtic Dragons Netball team started with the recording of a game using a video camera. During the recording specified key performance indicators (KPI) were logged using a Focus X2-based system. The KPIs had been suggested by the coaching staff, who asked O'Donoghue to include in his post-match analysis.

Following the recording of the game positive aspects of the performance were compiled to produce motivational videos, and negative aspects were collected to inform coaching decisions and provide feedback to the players (O'Donoghue, 2006). The feedback was delivered to the athletes in video and written format (statistics from the KPI's), and this information was used to design and implement future training sessions.

Similarly, Jenkins, Morgan, and O'Donoghue (2007) found the PA system employed by the University of Wales Institute Cardiff's (UWIC) 'C' Netball team inputted KPI's into an X2 match analysis system to produce match statistics (shooting and possession). The researchers utilized a case study design to determine if the PA system benefitted the coach's decision making and improved team performances. Field notes were used to determine if the areas for improvement highlighted by the PA system were addressed during the coaching process.

The performance analyst met with the Netball coach the morning following each competitive match to review the positive and negative aspects of the performance. This review was used to design future training programs. Over a four-month period, 7 cycles of the match-to-match analysis process (8 matches) was observed. The first four matches were compared to the last four matches using the following key performance indicators:

> Mean frequency of each possession type, frequency of goals from each possession type and frequency of shooting event for the team and their opponents during the 2 sets of 4 matches. Percentage of possessions leading to goals and percentage of attacking and defensive rebound opportunities. (Jenkins, Morgan & O'Donoghue, 2007, p. 69)

The researchers concluded the performance of the team "slightly reduced between the first and second sets of 4 matches" (Jenkins, Morgan & O'Donoghue, 2007, p. 70). They attributed various uncontrollable factors to the decline in performance which included the quality of the opposition, an injury to the team captain, fitness levels, health status of players, outside pressures, and the short period of the research, which may have been insufficient to see sustained improvement.

Overall, the research failed "to provide evidence that the match analysis approach used is effective in enhancing match outcome" (Jenkins, Morgan & O'Donoghue, 2007, p. 76). However, an analysis of the field notes revealed the match analysis process was effective during certain match-to-match cycles. Improvements in team performance were seen in four of the seven match-to-match cycles. An improvement in performance was identified when the statistics from a previous match identified an area to address in training; videos were produced highlighting these areas of concern; the coach decided what caused the outcomes, addressed them in training; and there was an improvement in the next match based on match statistics. Interestingly, improvements were also seen during times when areas for improvement were not addressed in training. This supports existing literature which contended the coaching process is far from simple, and is a highly problematic endeavor (Cushion et al., 2006; Potrac, Jones, Brewer, Armour, & Hoff, 2000).

Olsen and Larsen (1997) described how the development of an "efficient computerized notation analysis program" (p. 210) over the past 20 years has influenced how the Norwegian national football teams have developed their attacking style. By analyzing the opponents defensive structure coaches have been able to determine how

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penetrative their attack needs to be against their opponents. This has stemmed from using a match analysis system which used 16 parameters to analyze matches and the individual contributions made to each team performance. Such an approach has given the Norwegian national teams a clear and consistent approach to match preparation and has helped develop their national identity in football.

   Coaching and delivery philosophy. Groom et al. (2011) found the coaching philosophy of 14 English youth national football coaches influenced how they designed and delivered video-based feedback sessions. One coach commented on how a video-based feedback session would differ depending if a coach was developmental or winning orientated.

   Wright et al. (2013) found support for Groom et al. (2011). They discovered significant differences existed between analysts working in professional football settings compared to those who worked in academy settings. Overall, analysts who worked in professional settings used statistical documents more than academy analysts during post-match analysis. They also preferred delivering post-match feedback to small groups, and valued instant feedback, post-match feedback to the whole team, and pre-match/opposition analysis more than academy analysts. These differences suggested analysts who worked in professional settings focused more on preparing their athlete's through analyzing the opposition while academy analysts were more concerned with developing their own players and teams.

   Another coach interviewed by Groom et al. (2011) recounted how negative experiences as a player influenced how he delivers PA information as a coach. The coach commented,

when I was a player all I was ever shown was how crap I was, and I know how I felt afterwards, and I know how I felt coming to the game on Saturday….So I'm very careful of what I want the players to see, and I'll always leave them on a high. (p. 23)

Another coach interviewed by Groom et al. (2011) stated coaches who delivered video-based feedback sessions should "be aware of the positive and negative clips, and always end with positive images" (p. 23).

Reeves and Roberts (2013) utilized a descriptive case study design to "investigate perceptions of the effectiveness of PA within an elite youth football setting" (p. 202). The researchers purposefully selected one coach, two full-time performance analysts, and five Premier League Academy football players during the 2011-12 football seasons. The purpose was to understand how they perceived the role of PA within elite youth football and how they thought it impacted athletic performance. Overall, the football coach they interviewed was mindful of staying positive during video-based feedback sessions as he believed players know when they do things wrong and don't need these pointed out in front of their peers.

These sentiments have received support from football players. Groom and Cushion (2005) used a semi-structured questionnaire to examine "the perceptions of professional youth footballers (N=10), who had received video feedback sessions to reflect on their own performances and the performances of the team" (p. 40). The questionnaire focused on the five key areas first mentioned by Groom and Cushion (2004): Usefulness, learning, reflection, timing, and mental aspects.

Groom and Cushion (2005) concluded the impact of delivering video-based feedback to athletes was dependent upon the coach's ability to balance positive and negative clips. They further suggested negative clips should be kept to a minimum if an individual or team was lacking confidence.

Nelson et al. (2011) supported the idea of balancing positive and negative clips during the delivery of video-based feedback sessions. The researchers utilized a single subject case study design to "provide a rich insight into how an elite ice-hockey player (John, a pseudonym) experienced and responded to his coaches' delivery of video-based feedback" (p. 2).

During their interview with John, he revealed how one of his teammates disliked receiving criticism during video-based feedback sessions, especially in a team setting. This led him to doubt his own ability and John believed his teammate's efficacy for ice-hockey started to lower. These findings supported the need for individualized PA sessions during the coaching process and a balance of positive and negative video clips while presenting PA.

However, O'Donoghue (2006) revealed the netball coaches he worked with avoided producing a certain ratio of positive to negative clips for their athletes because they felt the needs and expected performances of each player was different. Instead, the individual movies produced by O'Donoghue were tailored to each athlete.

Recipient qualities. Groom et al. (2011) found coaches carefully considered their athlete's personal qualities when designing and delivering video-based feedback sessions. One coach stated this extended to "knowing the athletes as individuals, knowing what they like doing and what they do not, while creating an environment where athletes can

be open about not understanding issues without the fear of being judged" (p. 25). Overall, the coaches suggested the work ethic, honesty, integrity and motivation of athletes had to be considered if a video-based review was to be effective.

Groom and Cushion (2005) used Felder and Solomon's (1991) Learning Style Inventory to understand the learning styles of 10 professional youth footballers. The results revealed the players had varying preferred learning styles. Learning on the pitch was the preferred mode of instruction, followed closely by watching video, and talking in the classroom. This demonstrated a need for coaches to use varying techniques when delivering information to players.

Butterworth, Turner, and Johnstone (2012) interviewed seven badminton coaches and explored their perceptions of using a newly constructed PA system. The researchers analyzed three recreation badminton players over six matches using performance profiling, court zone analysis, and match statistics. The full range of data was presented to the coaches for review. The data derived from the interviews supported Groom et al. (2011). The coaches declared individual differences needed to be considered when delivering this type of information to athletes. For example, the age, attitude and ability levels of athletes would have to be considered when planning analysis sessions. They suggested older and elite level badminton players required more feedback, especially with the finer details of their performance compared to their younger and junior level counterparts. The coaches thought the idea of using performance profiles with junior athletes was extremely useful. They deemed the visual aspect of the profile extremely effective at helping athletes set goals, and along with the correct questions and encouragement could stimulate their thinking.

Social environment. Groom et al. (2011) found the social environment was the primary context where 14 England youth national team coaches conducted their video-based feedback sessions. The researchers contended coaches used different forms of power to influence athletes, and depending on the amount of respect afforded to them by their athletes, determined whether the receiving of video-based feedback was effective. The coaches revealed they used video as a platform for meaningful communication, and used this opportunity to inform athletes of their role on the team.

In the same fashion, Groom, Cushion, and Nelson (2012) found coaches used a form of social power to exert control during video-based feedback sessions. The researchers utilized an ethnographic framework to examine how a head football coach of an Under 18 English Premier League elite youth team interacted with his 22 players during six video-based reviews. The research provided a detailed examination of the pedagogical interactions that occurred in situ between a football coach and his players. The study extended the current literature base, which often used retrospective research designs to highlight the delivery and receiving of video-based feedback sessions in sport.

Groom et al. (2012) recorded and transcribed the sessions using a conversation analysis approach which explored the talking in action occurrences between the coach and his players. Furthermore, the researchers looked closely at how interactional tasks were achieved through the use of talk. Groom et al. (2012) concluded the coach attempted to,

> exercise control over the sequential organization of the sessions, via asymmetrical turn-taking allocations, control over the topic of discussion and the use of

questioning (i.e. adjacency paired interactions; coach request for information –

athlete response) to reinforce his social basis of power. (p. 452)

Similarly, Bampouras et al. (2012) found the overall in-practice process of PA

was seen as an imbalance of power in favor of the coach. The researchers interviewed a

rugby player who supported this notion by declaring that "We were never given the

option to say you want to do it or not, how do you think it is going? Is it beneficial

towards us or not? We were never given that kind of control" (p. 478). This supports

previous research which suggested the power relationship between a coach and athlete is

highly skewed in favor of the coaching practitioner (Cushion, 2007; Cushion et al., 2006;

Potrac & Jones, 2009).

Whereas Groom et al. (2011) found coaches tried to control and dominate video-

based sessions; Nelson et al. (2011) discovered athletes responded favorably to this form

of interaction when they had sufficient respect for their coaches.

Nelson et al. (2011) used four semi-structured interviews and a reflexive log to

explore and ultimately interpret how John (an ice-hockey player) experienced video-

based feedback during training and competition. John's initial respect for his coaches was

based on their social role and previous achievements in ice-hockey. This was enough for

John to view his coaches feedback as legitimate or worthy of serious consideration.

However, this respect only remained if he perceived his coaches as being passionate, in it

for the athlete's development, having good knowledge, and having a desire to win.

Equally important for John was he perceived his coaches having invested

considerable time designing the video-based feedback sessions and had linked them to

training sessions (Nelson et al., 2011). However, respect for his coaches changed over

time when their decisions and behaviors were perceived as inadequate. For example, a teammate of John openly questioned a coach during a video-based feedback session and the coach was perceived to back down. Subsequently, the rest of the team lost respect for him and questioned him during further video-based sessions.

Presentation format. Wright et al. (2012) found coaches conducted video-based feedback sessions with individual players (82%), small groups of players (73%) and the whole team (86%). The football coaches interviewed by Groom et al. (2011) also used individual, small group and whole team formats during their video-based feedback sessions. The coaches reported individual feedback sessions were a chance for coaches and athletes to discuss their thoughts on a performance and to go through a post-match analysis together. Small group sessions were used to divide the athletes into groups (defenders, midfielders, attackers) and have them analyze their own performance by listing their strengths and weaknesses. According to the coaches whole team review sessions were used to prepare the team for upcoming competition.

Two football coaches interviewed by Groom et al. (2011) suggested the psychology of the athletes is an important consideration when deciding the format of delivering video-based feedback. One coach recounted,

> There was one specific player at United that I was always having a little bit of a run in with him about his work ethic. Coach A said to me, 'take him away do a one-on-one with him on the video', and that player responded very, very well one-on-one, and he didn't respond well to group atmosphere. (Groom et al., 2011, p. 26)

Another coach declared "It's about dealing one-on-one with individual personalities and also the psychology of it, when to give them the good stuff and when to give them the not-so-good stuff" (p. 26). Similarly, Carling et al. (2005) suggested coaches should avoid highlighting individual mistakes when delivering feedback, and instead should focus on feedback that pertains to small groups of athletes or the whole team. He stressed "finding the right balance when identifying and presenting good performance and poor performance is essential" (p. 78), if a coach wants to avoid alienating athletes.

Session design. Wright et al. (2012) found 91% of the coaches they interviewed were involved in match analysis, and of these 32% had access to a performance analyst who provided them with PA data. Similarly, Wright et al. (2013) found performance analysts sometimes delivered video-based feedback to athletes. Of the performance analysts they surveyed, 53% said they took between 0-20 minutes to deliver a video-based feedback session in a professional context, and 56% took between 21-40 minutes in an academy setting.

Groom et al. (2011) found England youth national football team coaches carefully planned video-based feedback sessions and had a clear focus in mind. The length of a typical feedback session was between 15-20 minutes and the coaches were conscious of not overloading their athletes with too much information. This was supported by John, who reported he respected his coaches more if he perceived they had spent time creating meaningful video presentations (Nelson et al., 2011). Likewise, the Netball coach and Tae Kwon Do sport scientist interviewed by Bampouras et al. (2012) suggested delivering too much information to an athlete was detrimental to their development.

Groom and Cushion (2004) interviewed two professional U17 youth football coaches who were new to delivering video-based feedback, and found they spent slightly longer than the experienced coaches interviewed by Groom et al. (2011). Groom and Cushion (2004) utilized an exploratory case study to examine the coach's perceptions of using video analysis during the 2003/04 football season in the UK. They reported each video-based feedback session lasted approximately 30-40 minutes. Although they thought the sessions were initially a little long winded, they believed their efficiency at delivering the coaching points improved over time and their players had become accustomed to the length of each video review. In contrast, Groom and Cushion (2005) found seven of the ten youth football players they interviewed said 30-40 minutes was too short for their liking.

Delivery Approach

The England youth football coaches interviewed by Groom et al. (2011) reported they used a variety of formats to view or deliver PA information. They constructed the category of delivery approach which was subdivided into motivational videos, opposition analysis, performance feedback, performance modeling, performance review, and training.

Motivational videos. Groom et al. (2011) found coaches used motivational videos before matches and at the end of team meetings to motivate players and remind them how successful they'd been in the past. O'Donoghue (2006) created motivational movies for similar reasons. While working as a performance analyst for the Welsh Netball Association he produced 3-5 minute individual and team movies for the 2005

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under-21 World Championship and 2006 Commonwealth Games. He gave the individual movies to 12 players before the start of international competition as a reminder of how successful they've been at performing. The team orientated videos were shown to the whole team before they engaged in a pre-game warm up. The footage was positive in nature and often showed successful team performances against upcoming opponents. The videos incorporated music as a source of motivation, and photographs were often added along with written positive messages. The players reported they wanted to see negative aspects of play incorporated into the motivational videos. They believed these videos were a chance to learn from mistakes and if coach feedback was added to the clips it could enhance team performances.

Jenkins (2006) found netball players reported motivational videos helped them understand their individual performances and the overall performance of the team. The instructional use of the videos was recognized by the players and they identified "how the team interacted and [this] increased [their] understanding of players' movement and techniques" (p. 11).

O'Donoghue (2006) found athletes were concerned about the timing of the motivational videos. They suggested viewing the videos close to competition time was a concern, especially when little time was allocated for the pre-competition warm up. This led other athletes to suggest watching the videos at different times, mainly half-time, post-game and individually. Other responses recommended adding the score and other statistics to the edited movie; providing the players with some contextual information.

Similarly, Jenkins et al. (2007) used an open-ended questionnaire to survey 12 Netball players on their views of the motivational videos used throughout their Netball

season. The motivational videos were produced by a performance analyst who used Microsoft MovieMaker software (Microsoft Corporation) to produce short (2 1/2 – 5 minute) videos. The motivational videos displayed positive aspects of the team's performances and music was added to each one. The motivational movies were shown to the players 30 minutes prior to each competition.

At the end of the season each athlete was given a copy of each motivational video as a souvenir of the season and as a chance to review before completing the questionnaire. The responses were subjected to inductive analysis and a selection of themes was identified from the text. The finding's revealed several perceived benefits to viewing motivational videos. The main benefit was its influence in improving player and team confidence. The use of slow motion allowed the players to focus on team strengths and when played before competition it gave everyone a positive outlook. Also, the athletes discovered which players worked well together and what specific plays were successful, providing athletes with an appreciation of their actual performances.

Opposition analysis. Groom et al. (2011) noted the coaches they interviewed were careful not to portray upcoming opponents as either very good or very poor. However, one coach believed showing his players their opponents' weaknesses gave them a boost in confidence.

While working as a performance analyst O'Donoghue (2006) compiled opposition analysis videos to prepare the Welsh national netball team for upcoming competition. These videos were watched by the coaches and players which led to healthy discussions about future tactics. In addition, O'Donoghue used video footage shot over a number of years to focus on an individual opponent. The movie was watched by the

coaches and players and subsequent team tactics were devised to play against her. The movie was supplemented with statistics which displayed her success rates at shooting from different areas of the court. When the Welsh national team finally played against this particular opponent statistics revealed the team strategy had been successful in reducing her average successful shooting percentage.

Performance feedback. Football coaches have provided performance feedback in several ways. First, they talked during video sessions, providing essential augmented feedback, and second, they added running commentary to DVD clips which were given to individual players (Groom et al., 2011). Gradi (as cited in Court, 2004) explained his professional football conducted PA with younger academy players differently than senior players. He stated following each game the younger players were given an edited video copy with a running commentary from the coach. The idea was for the players to learn from the coaching points instead of receiving criticism. The coach believed it's important to foster inquisitive minds among players in the hope they would take responsibility for their own development and conduct their own future analyses.

Performance modeling. Groom et al. (2011) found coaches used three different types of modeling to inform their players. First, they would show examples of the players performing successfully (positive self-modeling). Second, they would show professional players performing with success (vicarious modeling). Third, they would use verbal persuasion to educate their players (coach feedback). These videos were primarily chosen to justify to the players why they worked on particular aspects in training and to offer them a visual model as a reference. The video reviews contained positive and

negative video clips. However, the coaches were conscious of not providing too many negative examples; preferring to focus on examples where the athletes were successful.

Nelson et al. (2011) found support for the coaches interviewed by Groom et al. (2011). The researcher found their interviewee (John) was exposed to different types of video-based feedback. John recalled previous coaches used highlights of the team overcoming difficult situations (performance accomplishments), as well as other teams succeeding in similar situations (vicarious experiences) to achieve the desired effect. In addition, the badminton coaches interviewed by Butterworth et al. (2012) suggested further uses of video-based feedback sessions could include using before and after clips to show players their improvement, and to use an expert model for the athlete to compare themselves too.

Performance review. Groom et al. (2011) reported coaches would often watch a full re-run of a game before delivering feedback to athletes. This was pointed out as crucial by one coach who suggested watching the game when the emotions had gone allowed coaches and players to analyze performances with more accuracy.

This is supported by Groom and Cushion (2004) who found the two football coaches they interviewed would review a full game allowing them to reflect on individual and team performances. Again, the coaches commented on how the emotion of watching a live game interfered with performing an accurate analysis. Interestingly, the coaches discovered individual and/or team performances were better than initially thought; and the opportunity to reflect provided specific feedback which was used to shape the teams playing style.

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The performance analysts interviewed by Reeves and Roberts (2013) concurred with the coaches interviewed by Groom and Cushion (2004), who stated the initial reactions following a match, whether it's from a coach, player, or analyst, is usually an extreme one. Therefore, the ability to reflect through PA usually reveals a performance to be not as bad or good as first thought.

Athletes have also reflected on performances following a video-based feedback session. Groom and Cushion (2005) revealed 90% and 70% of the football players they surveyed thought receiving video-based feedback sessions changed the way they thought about their own performance and their team's performance, respectively. The players noted watching video highlighted aspects of their performance they hadn't previously been aware of and this encouraged them to avoid repeating the same mistakes. Similarly, the players admitted coaches even apologized to them for an incorrect in-game comment after video-based sessions revealed what actually happened during a game. In the same sense, Groom and Cushion (2004) found the coaches they interviewed identified specific instances from games which the players couldn't recall, and this led to more meaningful discussions.

The performance analysts interviewed by Reeves and Roberts (2013) stated PA data complemented the feedback players received from coaches and parents, providing them with a more balanced view of performance. Furthermore, coaches were extremely enthusiastic about seeking PA data, which they believed afforded them the same opportunity to reflect on team performances.

Training. Wright et al. (2012) found coaches used PA to enhance their coaching practice by assisting with short (93%), medium (80%), and long term planning (70%).

Furthermore, it allowed them to film training sessions on a daily (21%), and weekly basis (21%) and this provided opportunities to assess the technical prowess (75%), tactical understanding (75%), and the effort of the players (57%).

Similarly, England youth football coaches record training sessions during their PA process (Groom et al., 2011). This informed the players their performances were analyzed on a daily basis and it informed the coaches when designing future training sessions.

Court (2004) utilized a structured interview to gather the thoughts, opinions and perceptions of delivering PA in a professional football club. Court interviewed Dario Gradi, the manager of Crewe Alexandra, to share his experiences of using PA in the coaching process. Gradi commented on the reasons behind hiring a full-time performance analyst during the 2003-2004 football season. He explained the reason was to save the coaching staff valuable time and this offered each player an opportunity to have their performance evaluated. This allowed the analysis to be conducted in-house and offer quick, valuable feedback to coaches as they prepared training sessions. In support, O'Donoghue (2006) reported the quick feedback he provided Netball coaches helped them identify team weaknesses and prepare practices and team speeches accordingly.

In the same sense, Butterworth et al. (2012) discovered the badminton coaches they interviewed thought the use of performance profiles during PA was a useful starting point for coaches. Performance profiling is a process where players rank themselves subjectively on key performance indicators and this is compared to objective data derived from video. These sessions allowed coaches to identify areas for improvement and helped them devise specific coaching sessions.

Targeted Outcome

Groom et al. (2011) created the category of targeted outcome to represent the end goal of coach interventions. This category was further divided into: facilitate learning, change behavior, improve efficacy, and increase motivation.

Facilitate learning. Groom et al. (2011) revealed coaches perceived the use of video as a way for coaches and players to develop a mutual understanding about a performance. In particular it encouraged healthy dialogue which allowed the players to clearly see and accept the decisions they made on the field. Similarly, Groom and Cushion (2004) found two professional U17 youth football coaches believed the provision of feedback during video analysis sessions improved players' understanding of their roles and responsibilities, leading to increased learning.

In support of Groom et al. (2011), the expert football coach (Gradi) interviewed by Court (2004) believed reflecting on a performance to see what really happened in a game was crucial for player learning. Gradi suggested an indisputable account of each game held everyone accountable, including the coaching staff. This led to a correct diagnosis of an individual or team issue and speeded up the process of getting the coaches and players on the same page and working together. Likewise, Butterworth et al. (2012) found coaches used video as a way to settle arguments which allowed them and their athletes to come to an understanding about a performance.

The youth football players interviewed by Groom and Cushion (2005) also perceived video-based feedback sessions as useful in terms of their learning. They perceived video to be efficient at "highlighting both, individual and team strengths and

weaknesses" (p. 42), and this helped them make better decisions and understand tactical game plans.

Nelson et al. (2011) discovered the ice-hockey player (John) they interviewed suggested his learning was dependent upon the respect he afforded his coaches. Moreover, he stated his teammates assisted each other with learning. John recalled several instances where athlete feedback during video sessions led to perceived increases in learning. Also, one of his former coaches used guided discovery to make him and his teammates think they reached correct conclusions about a performance together, which gave them the impression they were learning from each other and not just the coach.

Additionally, John believed the most effective video-based feedback sessions encouraged participation from the athletes. These sessions allowed athletes to provide constructive criticism to each other, and it was during one of these sessions that John discovered he wasn't at fault for his team conceding a goal. This reflection, he felt, only occurred because the coach encouraged players to voice their opinion without worrying about possible repercussions. This collaboration, he felt, led to perceived increases in learning.

Change behavior. The coaches interviewed by Groom et al. (2011) perceived video analysis as a useful way for them to develop professionally. Butterworth et al. (2012) found similar results from their interviews with badminton coaches. The younger coaches recalled more positives of using PA within their coaching process than the older coaches, and commented PA helped them develop professionally.

The coaches believed video-based feedback sessions increased player's knowledge and understanding of football. However, changes in behavior occurred over

lengthy periods of time and only from a combination of field practice and video analysis (Groom et al., 2011). Similarly, the players interviewed by Reeves and Roberts (2013) believed video-based sessions improved their performance through the identification of player and team weaknesses and this helped them see more on the pitch and make better decisions.

Improve efficacy. Groom et al. (2011) found football coaches used video to build the confidence of players; particularly goalkeepers who they found sometimes played well for most of the game but made one mistake and would dwell on it. Therefore, video footage allowed the coaches to remind goalkeepers of all the positive things they did in a game. The coaches also reported video-based feedback sessions helped build team cohesion. They used positive video clips with background music which improved the mood within the team and gave everyone a boost.

Increase motivation. Groom et al. (2011) discovered football coaches primarily used motivational videos to increase motivation in players. However, one coach suggested confidence and motivation were closely linked by declaring "there's the use of video from a motivational point of view. You know all the best clips of this, this, this and this, to provide confidence and a motivational aspect leading up to a game" (p. 29).

In support, football coaches have shown clips of players scoring goals and winning games and this led to perceived increases in confidence (Groom & Cushion, 2004). Additionally, Groom and Cushion (2005) explored the psychological aspects of viewing video and found over 50% of male youth football players believed it improved confidence in their own ability; improved confidence in their teammates; instilled pride in

theirs and team performances, and increased individual determination and commitment to the team.

However, football players have suggested the content of the video-based feedback sessions can have a motivating or de-motivating effect (Reeves & Roberts, 2013). Players reported they were either motivated to avoid previous mistakes captured on video or demotivated from watching a negative experience. The coach, on the other hand, never witnessed any demotivating effects from video, but protected players from negative experiences by conducting one-on-one PA sessions.

Summary

Cushion (2007) described the coaching process as highly complex and problematic. It included numerous contextual and situational factors, which produced a myriad of problems for the coaching practitioner. Central to the coaching process is the coach-athlete relationship which brings its own opportunities and limitations for effective interaction. This relationship was found to include coaches who exhibited different forms of social power, and athletes who have fluctuating amounts of trust and respect for their coaches.

A newly accepted part of the coaching process is PA (Groom et al., 2011). This aspect of coaching is now being undertaken in increasing types and levels of sport. However, the same affordances and constraints of human interaction which are a part of the coaching process are now a part of the PA process. Coaches frequently used video to deliver PA information to their athletes and Groom et al. (2011) highlighted the ambiguous and complex nature of this task as it fits in the wider coaching process. The 14 England youth national football team coaches interviewed by Groom et al. (2011)

revealed several factors a coach needed to consider when delivering a video-based feedback session. These included but were not limited to a coaching philosophy, the personal qualities of the athletes, how and when the PA information was to be presented, and what learning outcomes were to be achieved by the end of the video-based session.

A review of the PA research literature found an overabundance of positivist research methods, which often provided rash generalizations from studies with inadequate sample sizes and operational definitions (Mackenzie & Cushion, 2012). This has left several gaps in the field of PA research, particularly how video-based feedback sessions are received by athletes and how they can promote athlete learning. There was limited research pertaining to how athletes have perceived and responded to receiving PA as part of their athletic training and competitive program. This included only two articles in football, of which both involved male, elite level youth players.

This study extends previous research in the use of PA in football. First, it brings a first account of how female amateur (collegiate) football players perceived and responded to video-based feedback sessions during their training and competition program; adding much needed contextual information to the use of video in the coaching process. Second, three data collection techniques (interviews, observations, journal) are used to gather the perceptions and reactions of football players using video in the coaching process. Third, previous research investigating the perspectives of football players using video has focused on elite level youth players. The current study extends this to the amateur level by using collegiate football players. Fourth, it brings a social cognitive perspective to the perceptions and reactions of football players by using tenets of Albert Bandura's Social Cognitive Theory (1986) to frame the research findings. Fifth, it explored factors, other

than video, which influenced the athletes' ability to implement the coaching points they

viewed during video-based feedback sessions.

CHAPTER III

METHODOLOGY

In this chapter the research design is discussed in detail. A rationale of the study is presented and is offered as justification for the research design. The context of the study is offered to highlight the circumstances surrounding the study and the procedures used throughout the course of the study are described. The role of the researcher is placed firmly within the context of the study. Finally, the techniques used to collect and analyze the data are presented along with the trustworthiness of the research study.

Rationale

The purpose of the study was to understand how female college football players perceived and responded to video-based feedback sessions during their athletic training and competition. It is the first research study which explored how female football players perceived and responded to video-based feedback sessions, and the first study of its kind in a collegiate environment. The most efficient way to "understand a social phenomena from the perspectives of those involved" is to adopt a qualitative research design (Glesne, 2006, p. 4). The researcher used semi-structured interviews, casual conversations, and observations to collect the data. Additionally, the participants were asked to keep a personal journal to log their experiences. These data collection methods allowed the participants to examine and explain the influence video-based feedback sessions had on them.

Research Design

A case study has been described as "an intensive description and analysis of a phenomenon or social unit such as an individual, group, institution, or community" (Merriam, 2002, p. 8). It is well documented that case study designs are ideal for answering "how" and "why" research questions (Merriam, 2009) and for providing for a rich analysis (Herriott & Firestone, 1983; Stake, 2006). As Merriam (2009) stated. "The more cases included in a study and the greater variation across the cases, the more compelling an interpretation is likely to be" (p. 49).

What differentiates a case study from other qualitative research designs is the unit of analysis (Yin, 2003). It could be a female college football player, women's college football team, or even a collegiate athletic conference. Cases could be single or multiple. The researcher utilized a multiple case study design and selected five female football players as participants from a large public university in the southeast United States.

Literal Replication Logic

A multiple case study design offered the researcher an opportunity to conduct a more compelling and robust study (Yin, 2003). The researcher adopted replication logic when designing the study. Yin likened this logic to conducting multiple experiments whereby a case is selected and then replicated with the aim of corroborating each other (literal replication) or to reveal different case findings through exposure to different theoretical conditions (theoretical replication). The researcher utilized literal replication logic.

The design started with the development of a rich theoretical framework to act as a reference point for the case findings. This allowed the researcher to view the collected

data through a specific lens. Without using a specific theory to base the data the researcher would have been left with large amounts of data and no direction to take it. Yin (2003) stated the development of a theory prior to conducting research acts as a blueprint for the design phase and "is the level at which the generalization of the case study results will occur" (p. 31).

The theory selected to guide the research design and frame the research findings was Social Cognitive Theory (Bandura, 1986). The next step taken was to select the individual cases and develop the data collection strategies. Five cases were chosen to improve the validity of the study and to offer the researcher more certainty in the results when conducting the cross case analysis (Yin, 2003). Next, the five case studies were conducted and each case report written. A within-case analysis proceeded followed by a cross-case analysis. Figure 1 depicts the replication model suggested by Yin (2003).

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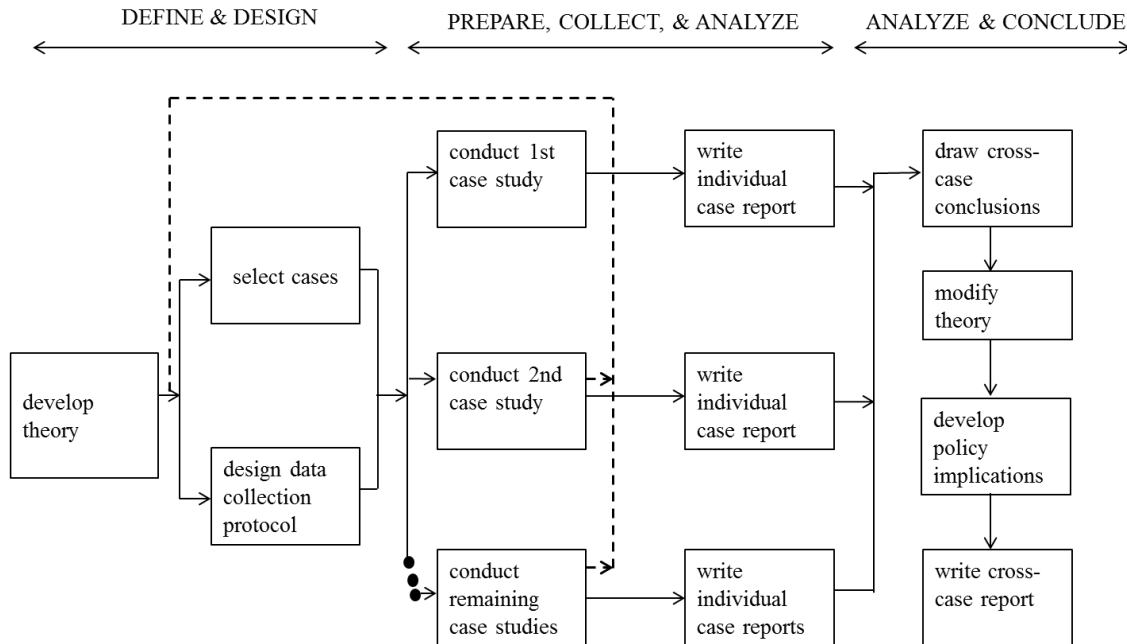
Figure 1.   Case study method (adapted from Yin, 2003). This figure depicts the steps a researcher should take to carry out a multiple-case study.

Bounded Unit

What is not easy for a researcher is defining the boundaries of the unit. Stake (1995) noted the difficulty a researcher faces when attempting to pinpoint where the case ends and the environment begins. Yin (2003) stated the boundary of a case should be guided by the research questions. Binding a case can be achieved through a location and time (Creswell, 2009), a timeframe and activity (Stake, 1995), or by a clear definition and context (Miles & Huberman, 1994). A clearly defined boundary helps to ensure that a study remains reasonable in scope.

In collegiate athletics in the United States each sport has a designated playing season. The playing season begins with the first officially recognized practice session and ends with the last practice session or competition. In sports other than American football

and basketball, the playing season can be divided into two different segments. These are known as championship and non-championship segments. These can occur during and sometimes overlap the spring, summer, fall and winter seasons. The designated championship segment for women's football is during the fall season (August through December) and the non-championship segment is during the spring season (February through April). There is no designated athletic activity for the summer or winter seasons.

The boundary of this study was guided by the interview questions and a time frame. Data were collected during the spring season. However, the participants were asked to share their experiences with video-based feedback sessions which included experiences from the fall 2011 football season through to the end of the spring football 2012 season.

Context

State University is a large public university located in southeast of the United States. In 2011 there were over 20,000 students enrolled at State which offers undergraduate and graduate degree programs spanning several different colleges: agriculture and life sciences, architecture, art and design, arts and sciences, business, education, engineering, forest resources, honors, and veterinary medicine. In addition to academics, the university offers 15 different intercollegiate athletics teams which have over 400 student athletes. The athletic department is a member of the National Collegiate Athletic Association and its teams compete in a major conference.

Coaching Staff

The coaching staff consisted of a head coach, two full-time assistant coaches, and a volunteer assistant coach who worked primarily with the goalkeepers. The head coach had been coaching at the collegiate level for 15 years with the previous nine years at State University. During this time he had coached men and women, and his record stood at 207-137-19.

I have been a collegiate football coach in the United States for 13 years. I have coached men and women, and have a head coaching record of 59-15-6. I have spent the past eight years as a full-time assistant women's football coach at State University. Throughout my coaching career, I have used technology when analyzing players and competition, and have found it invaluable during the coaching process. On August 1, 2012, I received a level 5 accreditation from the International Society of Performance Analysis of Sport (ISPAS). My curriculum vita is presented in Appendix A.

Women's Football Team

According to the NCAA, the women's football team was allocated a playing season of 132 days of practice and/or competition. These occurred during the fall 2011 and spring 2012 seasons. The fall season officially started on August 6, 2011, and finished on October 28, 2011, with 53 practice days and 20 competition days being allocated. The spring season officially started on February 6, 2012, and ended on April 21, 2012, with 53 days of practice and 5 competition days being allocated. A breakdown of the playing season for the women's football team is in Appendix B.

The women's football team finished the fall 2011 football season with a record of 6-10-3 and a conference record of 3-7-1. This placed the team tenth in the 12 team conference with a NCAA division one Rating Percentage Index (RPI) of 158 out of 322 competing teams. At the end of the fall season the head coach and I conducted an end-of-season analysis. The analysis contained objective data and subjective opinion.

Objective data were garnered from using the Prozone Matchviewer system (Matchviewer, 2014). The Prozone Matchviewer software program is a scouting and post-match analysis system that provides feedback to the coaches in the form of objective data that is captured from a single camera source. Eleven of the twelve institutions competing in women's football in the conference utilized the Prozone Matchviewer system. This enabled the researcher to benchmark the State University women's statistics against other teams using the same objective method (Carling et al., 2005). The result was an analysis which showed State University had fewer attempted passes and successful passes than 10 of 11 opponents in the conference; a lower percentage of passes completed, and in-game possession percentage than all opponents in the conference (see Appendix C). The subjective opinion of the coaches was informed from watching recordings of the fall 2011 football games. As a result of the objective and subjective analysis, the training focus for the spring 2012 season was to increase the number of passes attempted and completed through maintaining possession of the football.

To challenge the team, games had been scheduled against conference foes as well as other leading division one women's football programs. The coaching staff allowed student-athletes who had completed their playing eligibility to forego practicing and

playing during the 2012 spring season. Therefore, the spring 2012 roster consisted of only 15 players.

Procedure

Permission to conduct research was received from the State University athletic compliance department on December 16, 2011, (see Appendix D). The State University Institutional Review Board (IRB) granted permission on January 26, 2012 (see Appendix E).

Sampling

Merriam (2009) noted that "within every study there probably exist numerous sites that could be visited, events or activities that could be observed, people who could be interviewed, documents that could be read" (p. 76). I decided to use the purposive sampling technique (Merriam, 2009; Patton, 1990). This technique allows participants to be purposively selected because they can provide a rich insight into the phenomenon under investigation. By doing so trends in thought and opinion are uncovered and an understanding of their experiences can be brought to light.

On February 14, 2012, I held a team meeting in the football locker room and informed the players of my intention to conduct research. I discussed the criteria set forth in selecting the participants: playing time from the fall season, academic year, playing position, and remaining eligibility. In addition, I discussed confidentiality issues and assured any potential participant they could opt out anytime and for any reason (see Appendix F).

The Participants

Following the meeting I sent an email to nine potential participants who satisfied my selection criteria (see Appendix G). Table 1 shows how each chosen participant satisfied the criteria for selection to the study. The email was sent to the participants individually to assure confidentiality. I decided to choose nine participants for several reasons. First, as the assistant football coach, I had the responsibility to develop players and improve the team. Choosing nine players meant I was fulfilling my role as a coach and doing my part toward the long-term development of the football program. Second, I wanted to cover every position in football to allow for a more compelling interpretation of the findings (Merriam, 2009). Third, more cases would improve the validity of the study and give me more certainty in the findings from the cross-case analysis (Yin, 2003).

Of the nine participants initially selected, only one failed to return the consent form within the specified five days and an alternative potential participant was e-mailed and secured for the research. To avoid the possibility of coercion, I decided not to collect the consent forms personally. An assistant professor from the Department of Wildlife, Fisheries & Aquaculture collected the consent forms and returned them to me.

Table 1

The Selection Criteria for Choosing the Initial Nine Participants

NAME	ACADEMIC YEAR	YEARS OF ELIGIBILITY REMAINING	PLAYING TIME FALL 2011 SEASON (MINUTES)	PRIMARY PLAYING POSITION
Allison	5th Year Senior	1	1203	Goalkeeper
Brittany	Junior	1	4	Right Back (Defender)
Caroline	Sophomore	2	1313	Center Back (Defender)
Daisy	Freshman	3	1313	Center Back (Defender)
Ellen	Junior	1	576	Left Back (Defender)
Faith	5th Year Senior	1	1112	Defensive Center Midfield (Midfielder)
Gail	Freshman	3	856	Attacking Center Midfield (Midfielder)
Hailey	Sophomore	2	1183	Left Forward (Attacker)
Irene	Junior	1	1195	Center Forward (Attacker)

As previously noted the multiple case study design followed literal replication logic, where Yin (2003) likened it to conducting multiple experiments, whereby a case is selected and replicated with the aim of corroborating each other. By reducing the number of case studies from nine to five the researcher was still able to provide a more compelling and robust study. This is supported by Yin who stated, "If you want a high

degree of certainty, you may press for five, six or more replications" (p. 51). The five participants were chosen for two reasons. First, they met the initial criteria set for selection to the study. Second, following the collection of data a unique case study presented itself for analysis. One participant, Gail, who received video-based feedback was injured early in the study and was unable to participate in any training or competition. Her perception and response to receiving video-based feedback sessions while injured revealed a unique insight into the perception and response of an injured female college football player while receiving video-based feedback. Table 2 shows the final selection of five participants who satisfied the criteria for selection to the study.

Table 2

The Selection of the Final Five Participants

NAME	ACADEMIC YEAR	YEARS OF ELIGIBILITY REMAINING	PLAYING TIME FALL 2011 SEASON (MINUTES)	PRIMARY PLAYING POSITION
Allison	5th Year Senior	1	1203	Goalkeeper
Caroline	Sophomore	2	1313	Center Back (Defender)
Faith	5th Year Senior	1	1112	Defensive Center Midfield (Midfielder)
Gail	Freshman	3	856	Attacking Center Midfield (Midfielder)
Irene	Junior	1	1195	Center Forward (Attacker)

Prozone Matchviewer

Team sports like football require players to perform complex and physically demanding skills and movements using various techniques (Bangsbo, Norregaard, & Thorsoe, 1991; Bradley, Mascio, Peart, Olsen, & Sheldon, 2010). Coaches attempt to quantify these actions through observation and collect data through notational analysis, with the purpose of planning future training sessions (Carling et al., 2005). The lengthy time it takes to carry out such an analysis has seen coaches turn to PA and performance analysts for help (Wright et al., 2013). The use of performance analysis software to collect and analyze data can save a coach valuable time (Carling et al., 2005; Hughes & Franks, 2008). I used the Prozone Matchviewer system to collect objective data and compile short videos. The videos were used to provide performance feedback to individual players and the team as a whole (Thomas, 2012).

Many companies now offer video analysis services (Buchheit et al., 2014; Castellano, Alvarez-Pastor, & Bradley, 2014). One company, Prozone, now offers a valid analysis of elite and amateur football players and matches (Di Salvo, Collins, McNeill, & Cardinale, 2006). One system offered by Prozone is called Matchviewer (Matchviewer, 2014). It is an "opposition scouting and post-match analysis platform," which "provides technical, tactical and video analysis from a single camera source" (Matchviewer, 2014, para. 1). According to Will Jones, a performance analyst at Prozone Sports, as cited in Venables (2013), a single camera is used to record a match. The footage usually follows the ball calculating on-the-ball statistics. However, action outside the camera's shot is missed and can't be incorporated into the analysis. The match is uploaded to a server

which Prozone accesses remotely and sends it to their processing department for manually coding.

On the other hand, the Prozone 3 system utilizes 8 to 12 cameras to track a player's physical data. According to Jones as cited in Venables (2013), the coders mark down "where on the pitch events are happening and where players are moving, then from that the system can work out the distance a player has covered and therefore his speed and direction" (p. 81). The coding includes anywhere from 60-65 events and the system can determine the next action to be inputted that must come out of a possible 250 events (Venables, 2013). Venables stated, "The data is then delivered to the clubs, utilising software provided by Prozone and the analyst at the football club can extract the information required" (p. 81). The final product allows instant access to every match event which is linked to video.

These two performance analysis systems have been used to research elite football. The majority of this research has focused solely on the Prozone 3 system and its ability to produce data on the physical profiles of outfield players (Castellano et al., 2014). The use of these systems are now become increasingly popular in collegiate football in the US with over 150 colleges and universities signing up to use their services (Vieyra, 2014).

Video-Based Feedback Sessions

Throughout the spring season the participants received various video-based feedback sessions which were created and delivered using Prozone Matchviewer. They included team reviews, individualized PA reviews, and English Premier League (EPL) reviews. Additionally, the participants were asked during their interviews to reflect on their experiences with motivational videos and opposition analysis from the fall 2011

season.

Team review. I presented the team review sessions in the football locker room. A photo of the football locker room is in Appendix H. The sessions lasted between 15 and 30 minutes which was essential to avoid losing the interest of the players (Carling et al., 2005; Groom et al., 2011). These sessions were carried out to prepare the team for competition (match preparation), or to analyze a recent performance (post-match analysis).

The team review sessions used for preparing for competition focused on team tactics. These video sessions contained edited clips of our opponents playing style, strengths, and weaknesses, as well as our own performances. These edited clips allowed me to highlight to the team the coaching points (tactics) to be followed when attacking and defending as a team. These coaching points involved specific individuals, groups of players (unit) and/or the whole team. The players were given an accompanying handout (Appendix I) to act as a reminder.

The team review sessions that were used to analyze a recent performance focused on the team's ability to carry out the pre-game instructions and tactics. The video highlighted both the successes and failures to execute the game plan.

Individualized PA review. Prior to each individual review I sent each participant a breakdown of their individual statistics from the fall 2011 season. These statistics were calculated by Prozone Matchviewer and were based on the scores they assign to individual events (e.g. successful pass, tackle). The breakdown displayed three equally weighted scores; a score for their defensive efforts, a score for their attacking

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performance, and a score for their ability to distribute the ball. The three scores added together gave each participant a total score and this was used to rank each player for each competitive game. An example of the individual statistics given to each participant can be found in Appendix J.

Individualized PA reviews were conducted in a one-on-one format. I met with each participant and provided feedback during the viewing of a video. The sessions were held either in the football locker room, head coaches office (see Appendix K for a photo of the head coach office set-up), or on a laptop in my office (see Appendix L for a photo of my laptop), and usually lasted between 12 and 60 minutes.

The coaching points made during the individualized PA reviews were based on various factors. Sometimes a player came to me and requested feedback on certain aspects of their training from the spring season or performances during the fall 2011 and spring 2012 games. These suggestions were always accepted as the participant's enthusiasm and commitment to their own athletic learning was considered vital to their development. I also made coaching points based on what I thought the player needed to improve on and the team objective for the spring. These coaching points were made after reviewing their Prozone data and games from the fall 2011 season, and from reviewing the spring 2012 training sessions that were recorded using a video camera. These sessions focused on technical and tactical aspects of performance.

English Premier League (EPL) review. Two sessions were used to review EPL football games. The first session took place on Tuesday February 7, 2012, and the team watched a recording of the Manchester City versus Tottenham Hotspur game that was originally played on Sunday 22, January 2012. The second session took place on Tuesday

March 20, 2012, and the team watched a recording of the Manchester United versus Tottenham Hotspur game that was originally played on Sunday March 4, 2012. The reviews took place in the football locker room. The games were shown to the whole team, and the players were asked to view the professional athletes who played their position on the field. I made additional points to reiterate the team objective for the spring: possession of the ball.

Motivational videos. During the fall 2011 season motivational videos were shown to the team in the football locker room. They were shown to the team immediately before they left the locker room to warm up for competitive games. The other full-time assistant coach was responsible for producing each motivational video. This was achieved by collecting video clips and photos and using Microsoft Moviemaker to produce a 10-minute video. The purpose was to inspire the players by showing edited clips of successful sports teams, athletes overcoming difficulties, other general inspirational video footage, and video clips and quotes of the State University women's football team. The videos were recorded with background music and quotes were displayed that had significance to our team and our pursuit of team goals.

Opposition analysis review. During the fall 2011 season opposition analysis videos were shown to the team in the football locker room. I used the Prozone Matchviewer system to analyze our upcoming opponents and prepare a 15-minute video to show the players. The videos were shown before a scheduled practice session which was used to complement the feedback given during the video session.

The purpose of the videos was to prepare our team by showing edited video clips

of our next opponent. The videos highlighted the general attacking and defending strategy of our opponents as well as their strengths and weaknesses as a team; key players as well as players to exploit on the field. The analysis also included a review of the opponents approach to set pieces which are the ways they attack and defend during free-kicks, corner kicks, throw-ins, and penalty kicks. The review included a discussion on how we would play against the opponent.

Spring 2012 season

The spring season was broken down into 11 weekly segments. Data were collected at various stages. Table 3 displays a breakdown of when and how the data were collected.

Table 3

Data Collection Based on Method and Timeframe

Week (dates)	Event	Data Collection Method
1 (Feb 15 – 21)	Practice	Observation
2 (Feb 22 – 28)	Practice, Competition (South University)	Observation, Journal
3 (Feb 29 – Mar 6)	Practice	Interview #1, Journal
4 (Mar 7 – 13)	Practice, (Spring Break 9th-18th)	Interview #1, Journal
5 (Mar 14 – 20)	Practice, (Spring Break 9th-18th)	Observation, Journal
6 (Mar 21 – 27)	Practice, Competition (North University)	Observation, Journal

Table 3 (Continued)

7 (Mar 28 – Apr 3)	Practice	Observation, Journal
8 (Apr 4 – 10)	Practice, Competition (East University)	Observation, Interview #2, Journal
9 (Apr 11 – 17)	Practice Competition (Locale University)	Observation, Interview #2, Journal
10 (Apr 18 – 24)	Practice	Observation, Interview #2, Journal
11 (Apr 25 – May 1)		Interview #2, Journal

Researcher Role

Constantly switching from coach to researcher and back again was a cause for concern. Although I had permission from the head coach to carry out the research, I was anxious not to spend too much time with my research, thus neglecting my coaching responsibilities. Maintaining a balance between preparing and conducting interviews, performing my coaching duties, and taking field notes was difficult to achieve. As a researcher I was mindful of listening carefully to the participants to learn how they experienced video-based feedback and to not miss out on some new information. As a coach I was expected to be authoritative and impart knowledge to the team, but this meant taking my eyes off certain participants. Coaching the whole team meant I potentially missed important observations of my participants, especially those relating to the coaching points made during the video-based feedback sessions.

The opportunities I took to talk with and listen to the participants did interfere with coaching the team. Conversely, while coaching the team, opportunities to observe the participants through the eyes of a researcher were blurred. This dilemma is common when using participant observation as a data collection technique (Glesne, 2006). The data collection method of participant observer is discussed in more detail under data collection.

Entry and Rapport

I had immediate access to the participants. The fall 2011 football season was my seventh year coaching at State University. I had witnessed first-hand how close the players were to one another and to the coaching staff. I also played a substantial part in recruiting the players to State University and had forged seemingly close relationships with all of the players.

Throughout the course of the study I was mindful of spending more one-on-one time with the participants compared to other players on the team. Therefore, I frequently offered those players not participating in the research an opportunity to take part in extra video-based feedback sessions. I discovered the participants became more relaxed in my presence as the research progressed. The extra time spent with the participants through interviewing and casual conversations seemed to strengthen our relationships. This was evident with Ellen. During her first interview she was reluctant to open up and elaborate on open-ended questions. By the end of the study she offered lengthy answers to what was quite sensitive questions regarding her own confidence and self-efficacy. Rapport with the participants developed continually throughout the course of the study and by the end I freely admit to feeling closer to the participants than the rest of the squad.

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Ethical Issues

I worked closely with IRB and my dissertation director to ensure confidentiality of the participants. Collecting data was an area of great concern with regard to the protection of sensitive information and privacy. The data collected were kept safe and secure in a locked drawer in my office. The door to the office was kept locked at all times. The data and data collection devices kept safe at all times included electronic voice recorders, transcribed interviews, a reflexive journal, and field notes. Pseudonyms were used to identify each participant on each written document. All electronic data were kept on a laptop and flashdrive. I reported nothing that could have conflicted with my obligation as a coach or as an employee of State University.

I interviewed the participants over a period of 11 weeks and as a result was privy to sensitive information. I treated every meeting with care and every effort was made to avoid discussing other participant's experiences in order to maintain the respect and trust of everyone concerned. Additionally, my observations were made during normal practice and games times to prevent impinging on the private lives of the participants.

Data Collection

In qualitative research the researcher is the main instrument for collecting data. This afforded me the opportunity to talk with and observe the participants on a daily basis. It allowed me to respond to conversations and interviews by pursuing new lines of inquiry and shift my attention to certain areas of a participant's practice or competition performance. A threat to this data collection technique is the presence of a researcher's biases and its potential to influence the collection and analysis of data. This shortcoming was present in this study and is discussed in more detail under data analysis.

Several data collection techniques are often used in qualitative research. I utilized semi-structured interviews, participant observation, and personal documents (Merriam, 2009).

Semi-Structured Interviews

Interviews are a great way to gather in-depth information. They "permit researchers to obtain important data they cannot acquire from observation" (Gay & Airasian, 2006, p. 209), and are "an important way for a researcher to check the accuracy of –to verify or refute –the impressions he or she has gained through observation" (Fraenkel & Wallen, 2007, p. 454). I decided to use semi-structured interviews during the research. These interviews allowed me to pursue a pre-determined set of topics, but it also allowed the freedom to explore new lines of inquiry if anything new was mentioned by the participants.

I developed a list of topics to be discussed at each interview, and this allowed me to maintain a conversational style with the participants. The interview schedule changed over time when new information was discovered, which called for adding, deleting, or modifying topics. The interview protocol is in Appendix M.

My first interview acted as my pilot interview and was conducted with Ellen on March 5, 2012. This pilot interview gave me an opportunity to reflect and evaluate my performance as a novice interviewer. Following the interview with Ellen, I listened to the interview and decided I needed to probe more when interviewing other participants. I asked Ellen if we could repeat her first interview and assured her it was due to my own incompetence and she agreed. Her first interview was rescheduled and conducted on April 5, 2012.

Each participant was interviewed twice; at the beginning and end of the spring semester. The purpose of an initial interview is to begin to develop a rapport with the participant. Rapport can be achieved through taking a neutral stance on issues and communicating in a nonthreatening way. Additionally, it is an opportunity to introduce the participant to the issues under consideration and to begin asking background and preliminary questions (Glesne, 2006). The purpose of a second interview is to confirm or follow up on responses gleaned from the first interview, and to discuss new events which had occurred since the initial interview. Also, if an element of rapport has developed between the interviewer and interviewee more probing questions can be asked to gather greater detail about sensitive issues and topics (Merriam, 2009).

During the first set of interviews I wrote down brief comments to the participant's responses and this served as both a reminder for what had been said and when preparing for the second interview. These comments became a part of my simultaneous data collection and analysis (Merriam, 2009). Each interview took place in my office and lasted between 25 and 50 minutes. I decided to use my office since it was a common meeting place with the players, and they seemed relatively comfortable in that setting. Each participant was asked if the office was a suitable location for their interviews. Each interview was recorded on a Sony digital voice recorder (ICD-PX312) and transcribed verbatim.

Throughout the course of the research I engaged in casual conversations with the participants. These conversations were informal in nature and gave me a chance to verify or refute information I had received from semi-structured interviews or from observations I had made (Merriam, 2009). The type of questions I posed during these conversations

were either open ended; asking the participants to elaborate on a topic already discussed, e.g. How did the video session we did today help you in practice this afternoon?, or closed; whereby I was looking for a distinction between two possible answers, e.g. Did you remember anything from yesterday's video session while training today? In general, these conversations were unstructured and notes were taken after the conversation had finished.

Participant Observation

Observations can be used to corroborate what was revealed during an interview. I took on the principal role of participant as observer during the spring season (Merriam, 2009). This role involved balancing my duties as a football coach with my role as researcher. However, the nature of my position as a State University coach meant my coaching responsibilities took priority when the two roles conflicted.

Merriam (2009) noted there are several things to observe. These include the following: the physical setting, participants, activities and interactions, conversations that take place, and subtle factors such as informal or unplanned activities. The length of a typical day for me during the spring lasted as long as 15 hours; from early morning workouts to late evening practices. I decided to focus my observations on the participants during training and competition. In particular, I was looking at the behavior associated with the coaching points made during the video-based feedback sessions. This included physical effort; technical ability and their tactical understanding of their playing position (see Appendix N for my observation objectives). This approach to observing in the field allowed me to make specific connections between the coaching points made during video-based feedback sessions and the participant's attempts to execute them.

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I used a field journal to record my observations and to note any meaningful comments made by the participants during training and competition. However, my role as a coach greatly affected how much I wrote down during designated field observations. Some journal entries had only brief descriptions or key words written down. I had to rely on my memory when writing up detailed field notes. Appendix O presents an example of my detailed field notes.

Each journal entry had a time, place, and purpose of my observation. This included a working list of the participants and the coaching points they were working on. Initially, the list of participants and coaching points to observe was manageable, but as the season progressed the list increased dramatically and it became difficult to see everything listed. Toward the middle of the season I decided to focus my observations on the most recent coaching points made to each participant.

Personal Document

According to Merriam (2009), personal documents "are a reliable source of data concerning a person's attitudes, beliefs, and view of the world" (p. 143). During the first few weeks of the spring season, I decided to utilize this data collection technique. On February 28, 2012 I received permission from IRB to modify my data collection procedure and provide each participant with a personal journal. I told the participants to use the journal to share their experiences with using video-based feedback sessions and, if possible, to relate it to their athletic learning and development. The journal provided each participant with flexibility in how they shared their experiences and it offered those unwilling to offer negative comments during interviews a safe haven to criticize. I told

each participant they had the choice to submit the journal at the end of the study. Only one participant (Allison) failed to submit a journal.

Data Analysis

My research design was a multiple case study. It followed replication logic (Figure 1) and contained five cases. The three stages of my data analysis included analyzing my data during data collection, subjecting my data to inductive analysis, and presenting my findings as five case reports with within-case analyses and a final cross-case analysis.

The first stage of my data analysis occurred during data collection. It involved transcribing each participant's first interview and writing up detailed field notes following observations. Interview and accompanying field notes were read and re-read, and I made three different types of comments in the right hand column of the document. The first type of comment was my own opinion on potential themes or patterns that seemed to be emerging. The second type of comment related to any links I could see between the participant's responses and Albert Bandura's (1986) Social Cognitive Theory. If no link was evident, I would offer an alternative theoretical explanation. The third type of comment was my interpretation of the responses. In total, these comments gave me a sense of how the participants perceived and responded to the use of video in their training and it assisted me in preparing for further interviews and observations.

O'Donoghue (2010) suggested using Côté, Salmela, Baria, and Russell (1993) analysis of unstructured data when conducting studies in PA in sport. This goes beyond the simple approach of sifting through each interview, field note, and document

looking for reoccurring themes. Côté et al. (1993) used techniques in line with a grounded theory approach first developed by Glaser & Strauss (1967) to uncover meaningful units, properties, categories, and components with the aim of revealing a theoretical theme. Many qualitative researchers use these techniques although they lack the final product of a substantive theory.

This approach to data analysis is inductive in nature. First, meaningful units are identified in the data. These could be interview quotes, paragraphs from field notes or even entries into a journal document. These meaningful units are given an appropriate tag to describe what is going on. Tags are grouped together to form properties. These properties are grouped together to form distinct categories. These categories can become part of a higher level of category; to be used later as components of a grounded theory. The analysis ends when no new categories can be created from the data, suggesting theoretical saturation has been reached.

The second stage of my analysis involved subjecting my data to inductive analysis. I revisited each interview, observation, and document, and conducted a thorough inductive analysis of the data. The three stages of inductive analysis are open coding, axial coding, and selective coding (Strauss & Corbin, 1998).

The first step of inductive analysis is known as open coding (Strauss & Corbin, 1998). During this step I began reading each interview transcript, field note, and journal entry, and looked for meaningful units of data. These meaningful units of data were pieces of text that could stand alone, and I attached a tag to each one. These basic tags were more than precise descriptions of the data but they generally captured the essence of what was happening in the data. At this time I used the constant comparative method to

make sure I was being consistent in my application of the tags and every piece of text was coded. The constant comparative method is a process whereby each tagged piece of data is compared to similar tags to confirm it is done consistently.

The second step is known as axial coding and is used to develop relationships between the codes (Strauss & Corbin, 1998). During this step I formed concepts from the coded tags using a coding paradigm suggested by Strauss and Corbin. The coding paradigm offers different areas to place the concepts. These are areas relating to the following: the central phenomenon; causal conditions of the phenomenon; contextual factors relating to the phenomenon; the actions or interactional strategies relating to the phenomenon; and the consequences relating to the phenomenon.

The third step is known as selective coding (Strauss & Corbin, 1998). During this stage I formed categories from the concepts. These categories were developed to explain how my participants perceived and responded to video-based feedback sessions. An example of the open, axial, and selection coding from my data analysis is presented in Table 4.

Table 4

Example of Open, Axial and Selective Coding During Data Analysis

Interview text with open code	Axial Codes	Selective Codes
Researcher: So what did she do with it (oppositional analysis)? Caroline: She would try and explain **(explanations)** more of not on an individual level like how this is but just either kind of what was wrong **(faults with opponent)** with either all the defense as a whole like saying they were too far back or too far forward or how our forwards need to move more because **(opportunity for success)**..when we watched it was more of picking apart the other team rather than looking at ourselves **(focused on opposition)**. So it was like "this is their weak side defender so this is what side we need to go on" **(tactic)** or this is their best attacker so we need to double her" **(tactic)** More of that rather than being like we need to do this better about ourselves. R: And what, at the time I don't know if you remember what did you think at the time? That was what o seven, o eight, o nine? C: Yeah, ahm, I thought it was helpful **(beneficial to use OA)** because ahm she could, it made more clear like who we need to watch out for more and who, we can take advantage of **(informative)**. R: At the time you thought that? C: Yes. R: And..okay. What, what did you think of the stuff we did..like that..in the fall? C: I think it's just as helpful **(beneficial to use OA)** because like, like just gives that little bit of extra reinforcement **(informative)** like "I got the ball, their left back is the weak one so let's go to that side" I guess it would be that side but-	Previous coaches use of OA Perception of previous coach's use of OA. Perception of researcher's use of OA.	Perception of receiving and responding to oppositional analysis (OA)

Table 4 (Continued)

R: Okay- C: So I think it helps **(benefit)**- R: Ahm, so when you look at film what, what are ya looking at? C: The other team. Or just me personally? R: Well- C: Nah I gotta look at myself, **(focuses on self)** just me on the field - R: Let, let, let's just stick with the, the stuff we did in the fall- C: Okay- R: (overlapping) The, the oppositional analysis cos I, I did videos usually..the Wednesday for the Friday. C: Right. R: And then Thursday for the Sunday. Besides me kinda just waffling on and on- C: Aha- R: What, what do you gaze at? C: Ahm..I guess once since I was playing center I was watching their center forward **(focused on immediate opponent)** mostly to see if she was more of like a kind of check back or if she just kind of like waited **(playing style of opponent)** or I looked at how their midfield **(opponents midfield),** I just basically looking down the center of the field **(area of field)** to see kind of where I would have to adjust **(areas of concern)**.	Caroline's reasons for viewing OA the way she did.	

At this time I feel it necessary to admit not extending my analysis to generate a new theory. I had already used Bandura's (1986) Social Cognitive theory as a reference point to gauge my findings, as suggested by Yin (2003).

The final stage of my data analysis involved presenting my findings as five case reports with within-case analyses and a final cross-case analysis. The within-case analyses were written using a narrative approach in the hope I could tell each participants story. These narratives were organized based on the three research questions. The cross-case analysis was developed using the categories I developed during inductive analysis.

Trustworthiness of the Study

Quantitative and qualitative researchers must produce reliable and valid results. The reliability and validity of a qualitative research study is determined by its trustworthiness and this is related to how much rigor the researcher applied to carrying out the study (Merriam, 2009). During the research design, data collection, and analysis phases, I incorporated the following techniques to ensure enough rigor was applied to the process: prolonged engagement in the field, keeping a reflexive journal, triangulation, thick description, purposeful sampling, thorough documentation, and an audit trail of the steps taken during the course of the study.

According to Guba (1981), the trustworthiness of qualitative research can be improved if the researcher utilizes several techniques during the research design, data collection and analysis. These techniques are separated into the following four categories: credibility, transferability, dependability and confirmability.

Credibility

The truth value of qualitative research is determined by checking the credibility of the study. Credibility can be strengthened by employing several strategies. I employed three techniques: prolonged engagement in the field, keeping a reflexive journal, and using multiple methods of data collection known as triangulation.

Prolonged engagement in the field allows a researcher enough time to uncover patterns, themes and values and have them verified by participants. I spent 14 weeks as a participant observer which allowed me to interview each participant twice, make numerous observations and cross check the data with the participants through casual conversations, and informal meetings. However, as their football coach, I was concerned about the honesty of their responses, especially to difficult questions and to those pertaining to the use of video in their athletic development. I was worried some participants would tell me what they thought I wanted to hear instead of what they actually thought. I constantly reassured the participants I was looking for honest responses and any response they gave me would have no bearing on their place within the team. I constantly checked the accuracy of their remarks by reading back to them what they had said in the field and in interviews. The following interview excerpt with Caroline is an example of the researcher confirming the understanding of a response:

> Caroline: I think spring break isn't what got us out of shape. I mean it probably was the start to it; it was like going downhill from there, that was like the beginning. We were doing so good fitness wise and then spring break is probably when it turned.
>
> Researcher: What turned?

Caroline: The fitness.

Researcher: But you just said you felt fitter. And Hailey ran over spring break and a few other people said they didn't feel it wasn't physical, it was a focus. Their focus was gone.

Caroline: I thought it was completely physical (April 20, 2012).

I also experienced increased rapport with the participants. I believe the extra time spent talking and interviewing the participants relaxed them, and this interaction allowed them to open up and give truthful accounts of their experiences. Over time I noticed the participants became friendlier toward me and would spend an increased amount of time talking about topics unrelated to football.

Another technique used to increase credibility in a study is the use of a reflexive journal. Researchers can become overinvolved in the research process and have trouble separating their own experiences from the participants. I was concerned my relationships with the participants would cloud my judgment and any interpretation of the data would be distorted by my biases. My previous experiences coaching male and female college football players gave me an opportunity to compare male and female college football players. I entered the spring season with the belief female college football players are less competitive and motivated than male college football players. Additionally, as the team's performance analyst, I had an inherent interest in improving the players and team performances through the use of video. To protect against these biases, I also kept a reflexive journal. Following each observation or interview, I would brainstorm various reasons for the behavior observed or responses given. This provided me with alternative viewpoints through which I could analyze the data.

The third technique I used to improve the study's credibility was the use of multiple methods of data collection, known as triangulation. I collected data through multiple interviews with multiple participants, observations over 14 weeks, and personal documents. Instead of relying on one data collection technique to collect the data, I was able to strengthen my analyses by utilizing more than one data collection method. For example, the participant's journal entries confirmed what they said during interviews and vice versa. An example of this can be found in the analysis of Caroline's interviews and journal entries. A journal entry dated March 1, 2012 stated "Today we watched the second half of the [South University] game. The first thing I noticed was that I felt like I ran a lot more than I actually did." During her second interview on April 20, 2012, she reiterated this sentiment.

> Ahm, I've learnt that, I think that I do a lot more than I actually do, like I think I make a lot more runs and I think I have the ball a lot more than I really do cos after the [South University] game, after the first half I was like 'Yeah, I had a pretty good first half" and then I watched the first half I was like 'I didn't do anything.'

Transferability

The findings of a qualitative research study are not meant to be generalized to a larger population. Many studies include descriptive accounts of a person(s) or phenomenon and are therefore inherently unique to the study. However, a researcher can use several techniques that would allow readers to decide if the study is similar to their own situation. I adopted two techniques to increase the transferability of my study: thick description and purposeful sample.

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I used ample quotes from the participant's interviews and journals, along with detailed field notes to write the individual case reports; within-case analyses; and a cross-case analysis. In addition, I provided descriptive accounts of the participants, university, and the women's football team so the reader could decide if their situation is similar to the one in my study.

Second, I purposefully selected a sample of participants. Merriam (2009) called this maximum variation and it allows the reader to apply the findings to a wider range of circumstances, giving the reader an opportunity to appreciate the situational and contextual factors inherent in the study being read.

I maintain here that my analysis is not representative of any other college football team in the US. I recommend that college football coaches and performance analysts should decide for themselves if their own unique situation closely resembles the circumstances found in this study. Only then should comparisons be cautiously drawn between themselves and this study. The transferability of findings should not be confused with the generalization of results often found in quantitative studies (Merriam, 2009).

Dependability

The dependability of a study refers to the consistency of the findings. A researcher should document in enough detail the data collection, analysis and interpretation methods so a reader could reveal similar findings if they repeated the same study with the same participants. I kept numerous interview transcripts, field notes, personal documents, and analytic memos throughout my study.

My use of multiple data sources (triangulation) increased the study's dependability. This technique limits the weakness of any single data source by using

evidence from other sources. For example, information unavailable to an observer's eye could be revealed in an interview or read in a journal; likewise, information not gleaned from an interview could be observed in the field and verified through further interviews.

Confirmability

The confirmability of a study refers to the way data are linked to findings, interpretations and conclusions in a discernible way. To increase the confirmability of my study, I kept an audit trail of my major decisions regarding the research design, data collection and analysis. Lincoln and Guba (1985) identified six categories of information to track: raw data (field notes, interview transcripts), data reduction notes (condensed field notes), data reconstruction (themes, interpretations), process notes (design strategies, trustworthy notes), materials related to dispositions and research intentions (research proposal, reflexive journal), and instrument development (schedule of interviews, observations). An audit trail serves as a guide for an external auditor who can follow the research protocol and reach comparable conclusions. Additionally, the technique of triangulation, along with keeping a reflexive journal added to the confirmability of the study.

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Summary

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The purpose of this chapter was to present the methodology that was used in this study to determine how female college football players perceived and responded to video-based feedback sessions throughput their training and competition. The rationale, research design, context, procedure, researcher's role, data collection and analysis methods and the trustworthiness of the study were discussed.

CHAPTER IV

RESULTS

Introduction

This study explored the influence of five different formats of video-based

feedback on the learning and development of five female college football players during

training and competition. These included individualized PA review sessions, team review

sessions, and EPL reviews conducted during the spring 2012 football season.

Additionally, the participants were asked to reflect on their prior experiences of receiving

PA in the form of oppositional analysis and motivational videos from the fall 2011

football season.

Presentation of Case Studies

The following case studies are the result of several data collection strategies.

These included two semi-structured interviews, numerous observations and the collection

of a personal document (journal). This study was designed as a multiple case study and

consists of five individual cases. The following five case reports are presented: Allison,

Caroline, Faith, Gail and Irene.

Allison

The first case study focused on Allison, who entered the spring 2012 semester as

an academic senior with one year of athletic eligibility remaining. The case report begins

by exploring her soccer career prior to attending State University and any experience she had with receiving PA as an athlete. Next, the fall 2011 season is discussed with reference to her experiences while receiving and responding to video-based feedback session while representing State University. Following this the spring 2012 soccer season is explored in detail and includes her experiences of receiving and responding to video-based feedback sessions. It is organized and presented chronologically and is based on her receiving the following video-based feedback sessions: Individualized PA review 1, team review 1, individualized PA review 2, team review 2, and individualized review 3. Lastly, an end of season review with Allison is discussed.

Prior to Attending State University

Allison was born and raised in the South region of the US. Following Grades 9 and 10 she moved to a different state for her sophomore, junior and senior years. During these times she played competitive high school and club soccer. She was selected three times as an All-District and All-Conference goalkeeper for her High School and during her senior year she was an All-State selection, earning her third-straight 6A state championship appearance and a number two final State ranking.

While playing goalkeeper for her soccer club she received several honors and awards. In 2006 she played on the under 16 squad that claimed national finalist honors at the United States Youth Soccer Association (USYSA) tournament after winning the Region three championship. In 2008 she helped her club team to an eighth-straight State Cup and the Region III finals. Between 2002 and 2007 she represented her states 1989 Olympic Development Program (ODP), and was selected to the Region three player pools in 2004 and 2005 after being an honorable mention member in 2003.

Allison claimed her high school and club coaches never used video-based feedback sessions as part of their coaching routine. Instead, they followed the same practice routine of playing small sided games followed by scrimmages against boy's teams. This, she stated "helped us a lot better since girls' soccer is kinda slow anyways," and "boys are so much faster which helped us speed up [our] game."

Fall 2011 Season

While watching opposition analysis reviews during the fall 2011 season Allison would focus on the central areas of the field and in particular opponents who could cause problems for her on the field. She told me,

> I [would] look at the forwards, and I guess the midfielders too cos a lot of times
> the midfielders are the ones playing the through balls. But, I just look at the
> forwards and kinda know what side they favor more I guess so that tells me if I
> need to cheat or if I need to play up higher or further back.

This helped her prepare mentally for an upcoming match. It made playing the game a lot easier since, as she puts it, "you go into the game knowing what to expect or like you know you've already seen the players play [on] video so [the game] is easier to read." This made her "less nervous" and "more relaxed" because, as she put it "if they're gonna play up back and through you can go into the game knowing probably what side they're gonna do it on, or how quick they are, or just stuff like that."

Allison recalled enjoying the motivational videos shown during the fall 2011 season. She declared they "just get us excited to go out and play, and a lot of times she (assistant coach) does highlight plays so it kinda pumps you up and motivates you to do the same things that you saw on video."

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Allison ended the fall 2011 soccer season as an academic senior with one year of athletic eligibility remaining due to a red shirt year in 2008 (freshman year). As a red shirt freshman in 2009 she had suffered another injury while starting in only one of the three games she participated in. As a sophomore in 2010 she started all 17 of the games she played in, collecting 110 saves along the way. In the final game of the 2010 season she stopped three shots helping State University defeat City University to win a cup. In 2011 she played and started in all 18 games she took part in making 131 saves; the second-most in school history for a single season. Nationally, she was ranked ninth for saves, and was named to Soccer America's Team of the Week and conference Defensive Player of the Week following a 13-save shutout of 11th-ranked Southeast University on October 16th.

Allison was now coming into her last year of eligibility and stressed she still played for her teammates and tried at all costs not to let them down. She believed an emphasis on not making mistakes stemmed from her position as a goalkeeper and from her club coach and his coaching style. He used to scare her and she told me "Even if [a goal] wasn't my fault I got the blame for it." This, she felt, made her more guarded against making mistakes:

> Whether it's my fault or not I put the goals on me. So if I get scored on I pretty much take the blame for it because there's something I either didn't communicate right or I mean or I could have just made a mistake.

In general Allison saw video as a way to prepare for games by "having an idea about how a game is probably gonna go." This helped her avoid making mistakes by

seeing who her defenders were likely to play against and this "helped [her] know what to tell [her] defenders to do, and who to mark up on."

Prior to the start of the spring 2012 season Allison stated she expected to learn from video analysis and by the end of the spring to have fixed one aspect of her game without having to "keep going back and forth with." In essence she expected video to help her see if she was improving. She identified one-on-one breakaways and kicking as areas she wanted to improve. In addition she told me "Since our backline is pretty new I'd like me to be included with them so we could learn to work [together]…I feel like we're awesome but when we're disconnected and totally out of line is when things get kinda crazy."

Spring 2012 Season

On Tuesday February 7, 2012 the State University football team watched a recording of an EPL game between Manchester City and Tottenham Hotspur in the State University football locker room. Also, the team watched a recording of Manchester United and Tottenham Hotspur on March 20, 2012. The intention was to show the team examples of elite level football, and to have each player observe a professional player who played their position on the field. During the first game Allison remembered her head coach asked the team a poignant question. "He said can you see how much their outside defenders get involved?" She later recalled:

> The next day we went out to practice and we worked on trying to get both of our [outside backs] up at the same time when Faith stayed back. Or if she couldn't stay back only one [outside back] going [forward].

Later, Allison contended the team benefitted by "taking ideas from it like knowing how to get [our] outside backs in and knowing what our girls should be doing that they're not doing." This made her realize "our outside backs need to be better at getting forward," but she believed this wasn't easy since "they have a hard time getting back once they do get forward," compared to "the EPL guys [who] can just get up and down easily."

However, Allison stated she found it hard to pay attention to EPL games for long periods because she "never really watched it before." As a goalkeeper she struggled to learn much about her positon. She recognized "there's not a lot going on for keepers so I haven't really learned anything keeper wise from it."

Individualized PA Review 1

On Tuesday February 28, 2012, I sat down with Allison for our first individual review session at 4:15pm. I made two coaching points. First, I showed her a video of her taking goal kicks during practice. These had been a cause for concern and identified by both of us as an area she needed to improve during the spring. She admitted to being self-conscious about her kicking. They made her feel uncomfortable and nervous because she wasn't sure how far they would go. The video review lasted about ten minutes and it captured behind and side views of her taking goal kicks. She commented on watching these videos: "[It] looked really weird because I didn't realize how far I swing around the ball. I never really realized it until I saw it."

Allison and I agreed the position of her non-kicking foot was too far ahead of the ball and this prevented her from getting underneath it and clearing it high and far. In addition we agreed she should approach the ball from a less steep angle. To help remedy

this we gave Allison long strips of rubber to place behind the ball when practicing goal kicks. This was to provide her with a visual reference of where she should place her non-kicking foot. During the first day of using the strips Allison told me "it felt really awkward but once I did like twenty or so kicks [it] started feeling more comfortable," and this she attributed to approaching the ball "more straight [on] instead of so rounded."

Allison recognized the usefulness of the strips. She told me "If I didn't put the strip down I would kick the same way as I did before. It was the strip that was helping me remember where to put my foot." A few weeks after using the strips in practice she told me her kicking felt better. She stated.

I wasn't aware of how weird my kicking was until I actually put the strip out. I could definitely tell that if I kept working on it that my kicks would be so much more controlled and probably go a little bit further. So, whenever we put the strip down they were better because they were …more controlled and…I felt I was getting more power without swinging around so far.

Throughout the spring Allison worked tirelessly on her kicking technique in training and in games. During training she had "time to get set up and think about it more" and would spend a lot of time practicing her kicking and this allowed her to reflect and make adjustments when necessary. She told me, "My natural line up is so far back [but] now I can remember and think about it and come up closer." This was helpful because she recognized "when I start really far back my strides get big [and] my last stride ends over the ball… and my swing isn't going all the way through…my legs are so stretched out."

During games Allison would "start off thinking about [her new technique.]" However, due to an old injury her leg would become tired and she would return to her original technique. She stated "It's easier for me to get back to the way that I normally kick when I'm tired because I'm afraid I'm gonna mess up." It was usually during the second half of a game when she would see her "kicks not going as far," and this made her "nervous because [she] noticed a lot of times when [she] had bad kicks it came right back."

During the game against North University Allison's kicking was inconsistent. Her goal kicks during the first half were kicked very high but didn't travel as far, whereas the second half saw her kicks driven lower but still didn't travel as far as I would have liked. Nearly all of the kicks went between 30 and 35 yards in distance:

> Allison's goal kicks in the first half were lofted and usually landed short in the midfield and this put pressure on our center backs. The second half was different. Her kicks were lower in height and it looked like she was swinging harder and faster at the ball. Her punts were decent, with most going to the center circle (Field note: February 25, 2012).

During the game against East University her kicking was much better. She had to take a lot of goal kicks and seemed to clear the ball much further:

> Allison played the first half today and kicked the ball very well. This may have been down to the fact she only played 45 minutes. Her goal kicks averaged 40 yards and cleared our back line each time. Her punts were very good with the majority landing over the half way line and most reached the outer center circle (Field note: April, 4, 2012).

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Overall Allison felt watching her kicking technique on video helped her enormously. In particular she became "more aware of it" and during practice she made a conscious effort to "try to not get [her] foot so far ahead of the ball."

My second coaching point discussed the goal she conceded against South University the previous Saturday:

Midway through the first half [South University] had a free kick in a central position about 30 yards from our goal. The ball struck our wall and after a few short passes Irene played a soft pass to Faith who missed a 50-50 tackle. The player dribbled through and went around Jacky too easily and hit an early shot to left of Allison who should have saved it but she came out too fast (Field note: February 25, 2012).

During the individual PA review Allison identified getting set during one-on-one breakaways as an area of her game which she hasn't been able to fix in the last two years. She told me conceding the goal was very frustrating because "the majority of the time when I'm set, I'll save it…but the times that I'm not, most of the time they'll score." She recognized she needed to be more careful when approaching opponents who were dribbling toward her. She believed changing this behavior on the field wasn't going to be easy. She said, "I'm really impatient. If they're coming at me fast then I have to come at them fast. I don't think about what is happening." She reaffirmed:

I feel like I need more control when I'm coming out on one v ones….sometimes I'll just rush out there and just dive whenever I need to…but I need to stop and shadow them a little bit and not just go full blast toward the ball cos I think I can get eighty percent more than I do if I just go out there crazy.

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She further explained:

> Sometimes I just come out kinda crazy and I don't stop and so it's just so much easier for the person to just dribble right around me. What I need to be doing and I do sometimes and sometimes I don't, is come out, get set, kind of shadow them a little bit so it kinda makes them make the decision.

The game against North University confirmed her feeling she needed to stop and have more control when coming out against attackers, "Allison made it easier for their striker to score by dashing out of her goal and not slowing down." (Field note: February 25, 2012).

The game against East University saw Allison still struggle with getting set when opponents were about to take shots. "On two occasions, including East's first goal she failed to get set and keep her feet still. She came flying out toward the opponent and this slowed her reaction time down and prevented her from making a save." (Field note: April, 4, 2012).

Team Review 1

On Wednesday February 29, 2012 I conducted a team review session of the game against South University:

> At about 4pm today I conducted a team review of the [South University] game and the atmosphere was very quiet. It was great to see the girls pay close attention. The players were situated in a horse-shoe arrangement around the TV with some players lying down on the locker room floor. Throughout the video I made the general coaching point of switching the ball from one side of the field to the other, especially if they had more players than us. The mantra I used was

'pinch it one side, get it to the other side.' I was conscious of not criticizing individual players and in general I kept comments to a minimum to allow the players to focus on the game (Field note: February 29, 2012).

Allison believed this type of video-based feedback session was more beneficial than the EPL review session. She stated:

I like that better because it's us, so to me it's more realistic, because we can see what we did well, what we didn't do well, what we need to work on and you know I like going back to see the goals that I get scored on. So I can say you know I should have been set and you can take that into practice and work on that.

On Friday March 9, 2012, State University closed for spring break. The players left with a training plan and were told they would have to take the beep test (also known as multi-stage fitness test and yo-yo endurance test) upon their return. Allison believed this break affected the psychological aspect of the player's performance. She stated "I don't think we lost our fitness over spring break…I think people were still in spring break mode when we came back so it took some time to get serious." She further added "After spring break is when everyone starts to get stressed about school cos like usually teachers pile everything on you so I think that was the main problem…it wasn't like people didn't want to be there at all."

Individualized PA Review 2

On Monday March, 26, 2012, I reviewed the first 20 minutes of the game with North University. I told her she had to be more vocal when organizing the defense, especially when the opponents had a free kick close to our 18 yard box or when she was about to take a goal kick or punt the ball downfield. Allison acknowledged watching

video helped her communicate better with teammates. She admitted she "wasn't good at talking at first," but now recognized it had "helped [her] learn more about other people's positions…like knowing the back line and the midfield too and being able to tell them what to do," and because of this she remembered "if [a] goal kick [was] on Ellen's side [Ellen needed] to be pushed up and Mary slides over."

On Wednesday April, 4 2012, State University travelled to East University to play a competitive match. The game ended in a 2-2 tie. Allison performed well, especially with her communication skills:

> Allison was loud from the first minute tonight. She talked throughout the whole match and was constantly telling her backs what to do. She was always telling [Ellen] and [Caroline] to tuck inside when East University attacked and on her own punts down field (Field note: April, 4, 2012).

Team Review 2

During the evening on Thursday March, 29, 2012, I conducted a team review in the State University locker room. I used clips from our game with North University to convey two coaching points. The first coaching point was to show how North University had successfully dribbled and passed the ball out of their defensive third and into the middle and attacking thirds of the field. This included examples of defensive players dribbling the ball forward to create a two against one opportunity. The following day I delivered a field session with the team to show them how to recreate what we had viewed on video.

Allison told me the team review session helped her learn a lot about the roles and responsibilities of her defenders. She told me,

It's not just helping me learn about my position. I can learn you know Caroline

should have pressured the ball so I should have been the one to tell her to do it or

you know Ellen should have been marked up. Like you can watch the other

players and learn their roles too because you know, I mean for me I kinda have to

know everyone's role because I need to be the one telling them what to do. So it

helps me be able to visualize where and what the other girls are supposed to be

doing.

Allison explained to me an example of how she could help her teammates. She

said, "If we got scored on because someone let their mark go or someone wasn't goal

side or they didn't step at the right time, I can see that and so I can help prevent that from

happening next time."

Individualized PA Review 3

On Wednesday April, 11, 2012, I conducted my third individual review session

with Allison and discussed two coaching points. First, she had to stay a little higher in her

box when the ball was in the middle third of the field. Allison recalled having difficulty

with this and had to remind herself during the game against Locale University not to go

backwards when the opponents had possession of the ball in the middle third of the field.

She explained "It kinda threw me off. So I was like 'okay you're already up there so stay

there or go further up, just don't go backwards.'" She remembered thinking on several

occasion during the game "don't go back any further." Allison's positioning during the

game was excellent:

I noticed Allison stayed much higher in her box during quick counter attacks. This

happened in each half of the game and although she didn't have to cut out any

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through balls she would have been in a better position do so had they (Locale) attempted them (Field note: April, 13, 2012).

Second, I pointed out she had to stop retreating into her goal when opponents had breakaways and were dribbling toward her. She told me she didn't realize she was doing it until she saw it on film. In essence I was asking her to change how she approached one-on-one breakaways; something which she stated "threw her off [her] normal routine." At the end of the season she reflected on this and stated "When they start coming down the field I'll start going backwards and when I feel they're close enough to me that's when I start going forwards." This revelation somehow helped her change her behavior during the game against Locale University:

> During the second half Allison stayed quite high during a quick break from
>
> Locale University. The ball was played over Ellen's head and she stayed high and
>
> then retreated only a few yards before getting set for the shot. This was enough to
>
> close down the angle and the opponent shot wide of the far post (Field note: April,
>
> 13, 2012).

End of Season

On Thursday April 19, 2012, Allison reflected on her experiences of receiving video-based feedback during the spring season. Allison explained the positive impact video had on her. She recalled, "When I see myself have a really good game or whatever that makes me think I can be really good." This helped her realize if she had a good game she "should be able to do it all the time."

Allison identified several other benefits. First, she identified video as a useful way "to learn from your mistakes" and "if I have a bad game or whatever I can see what I

need to fix, and know that it's not the end of the world." Seeing mistakes on video was essential to her understanding what actually occurred in a game, and this allowed her to "re-live it and like kind of be there again to know like 'Oh okay I stepped too far.'" She further added,

I definitely want to see it if the goals are completely my fault. I would wanna know. I mean you could tell me what I did wrong but unless I physically see it, you know you're not gonna get the full understanding of what you did wrong.

Understanding these mistakes sometimes had a positive impact on her. She stated "It can motivate me if I have a bad game like it tells me that was terrible I need to do better next time."

Allison believed watching mistakes on video during team review sessions were crucial for her learning and development as a goalkeeper. She believed they made her more aware of them in future games. She said, "I'll remember last time I didn't do this or maybe I should come out earlier or get set earlier or something like that." However, remembering the mistakes from video-based feedback sessions occurred more in training than in games, especially for the one week following a video-based feedback session since she felt "mistakes are either fixed in that time or not."

Another benefit of watching mistakes on video is they helped her realize when she wasn't at fault for conceding a goal:

I hate seeing the mistakes but sometimes I can think that goal was completely my fault 100% and I go back and say well it wasn't, you know a lot of things broke down before I did, so sometimes that can make me feel better because I get really down on myself.

In addition, she preferred to watch video soon after a poor performance to help her get over the disappointment:

I would say the day after [a game] would be the best time [to watch video] because, I mean if it was good it was good, but if it was bad you don't wanna just sit there and dwell on it. If it was bad you wanna, see it, move on as soon as possible and keep going.

Allison explained other benefits of watching video included "seeing what you or your team is doing well so ya'll can build off that and make that better." and "seeing what the other teams are doing and what their game plan is so you can match that."

Allison identified one possible weaknesses of receiving video-based feedback and stated "I think…if you're seeing negative stuff on yourself every day that might kind of bring you down a little bit."

Caroline

The second case study focused on Caroline, who entered the spring 2012 semester as an academic sophomore with two years of athletic eligibility remaining. The case report begins by exploring her football career prior to attending State University and any experience she had with receiving PA as an athlete. Next, the fall 2011 season is discussed with reference to her experiences while receiving and responding to video-based feedback session while representing State University. Following this the spring 2012 football season is explored in detail and includes her experiences of receiving and responding to video-based feedback sessions. It is organized and presented chronologically and is based on her receiving the following video-based feedback sessions: Individualized PA review 1, team review 1, individualized PA review 2,

individualized PA review 3, team review 2, and individualized PA review 4. Lastly, an end of season review with Caroline is discussed.

Prior to Attending State University

Caroline was born on the west coast but spent the majority of her youth growing up in the south region of the United States. She competed in various sports during her childhood but football was always her number one sport. During high school she won two 5-AAAA State football championships and also played for a competitive football club. Between 2007 and 2009 she was nominated as her club captain and was also a member of her State Olympic Development Program for players born in 1992.

Caroline's only experience with PA prior to entering college was during high school. Caroline recalled her coach's use of opposition analysis during the high school playoffs:

> When we watched it was more of picking apart the other team rather than looking at ourselves. So it was like 'this is their weak side defender, so this is what side we need to go on' or, 'this is their best attacker so we need to double her.' More of that rather than being like, we need to do this better about ourselves.

Caroline felt this approach to game preparation was helpful since it was clear to her and her teammates who to "watch out for more and who, [to] take advantage of."

Fall 2011 Season

While watching opposition analysis video sessions during the fall 2011 season Caroline focused on specific opponents or areas of the field:

Since I was playing center [defense] I was watching their center forward mostly

to see if she was more of like a kind of check back or if she just kind of like

waited. Or I looked at their midfield….I [was] just basically looking down the

center of the field to see kind of where I would have to adjust.

This information was especially important to Caroline. She had started a new

central defensive partnership with Daisy and felt they hadn't quite gelled as a pairing.

Caroline commented on how these video sessions assisted with their development:

Since it was our, me and [Daisy's] first year together we didn't have that like

second instinct. I feel like the center back I played club with, since we've been

together for four or five years, like we just knew. So me and [Daisy] hadn't got

their yet, and so [we] had to be forceful like, 'you're going I'm staying', or 'I'm

going.' It just had to be clearer who was going to do what.

This information led to both players discussing the merits of their immediate

opponents(s), and this helped them to prepare for future competition. Caroline stated she

would often ask Daisy "Did you see how much the forward checked? Like we need to,

especially know, if she's on your side you go, if she's on my side I go, and [video] just

kind of reinforced it."

During the fall 2011 season, the State University football team was shown

motivational videos shortly before the warm up phase of competition. These were short

movie clips of individuals and/or the team performing in a positive way. Although

Caroline didn't focus on any specific plays or strategies but it did motivate her and made

her feel special about being a part of the State football family. She stated,

It makes me feel like I'm on the basketball team or [American] football team…cos they have those really cool videos that everyone gets to see… I think ours though… it kinda has that same environment that gets you so pumped but on a more personal level cos it's just us, like we're just doing it for each other.

Caroline ended the fall 2011 football season as an academic sophomore with two years of athletic eligibility remaining. She was named captain of the State football team as a freshman in 2010; starting all 20 games, and started in 18 of the team's 19 games during the fall 2011 season. Although still in the middle of her collegiate football career she admitted seeing the seniors leaving the previous year left her worried about her future:

I think now that I'm older, it's just like I really don't want it to end, so that makes me wanna be, cos I don't know what I'm gonna do after, you know? Cos I can like see the light at the end of the tunnel so I'm like 'only two years of soccer left.'

Prior to the start of the spring season Caroline stated she expected to simply watch video and talk about it. By the end of the season Caroline admitted she watched video with an inquisitive mind. She stated she would think "about what should have happened or what would have been a better or different idea…other options that you can see that we didn't look at and we didn't do." However, she felt her progress as a player would be improvement over time of the "little things, for example how I should not always be going forward for [the ball] but to stay back more, positioning myself better, or know where to be cos after watching yourself you do know what you were thinking."

Spring 2012 Season

The spring season started with a field practice on Monday February 6th. The following day the State football team watched a recording of an EPL game between Manchester City and Tottenham Hotspur in the State football locker room. Also, the team watched a recording of Manchester United and Tottenham Hotspur on March 20, 2012. The intention was to show the team examples of elite level football, and to have each player observe a professional player who played their position on the field.

Although Caroline stated she wasn't sure if they improved her performance, she did recognize it allowed her to compare the State team to the professional teams. She stated,

> What I did get out of it was watching how their positioning was I guess, it didn't make me wanna do cool things but it made me be more aware of how…compact we are, compared to like how spread out we could be and still be efficient.

This observation left her wondering about the physical demands of spreading out on the field and in particular for someone playing her position:

> I looked at how…farther their outside backs go…I think that for sure makes a big difference. That would be an impact player on the field to go that far, but I think that's gotta be really tiring to get that far up and then get that far back.

Individualized PA Review 1

On Thursday February 23, 2012, I sat down with Caroline for our first individual review session at 2pm. I reviewed a game from the fall 2011 season. It was a game against South University; a team we were to play two days later on Saturday February, 25, 2012. It gave me a chance to review her decision making. I reviewed two coaching

points with Caroline. First, when the correct times were to pass the ball forward, across the field, or back to a supporting teammate. The team performed extremely well against South University, winning the game by five goals to one. Caroline made excellent decisions in the game, especially dribbling the ball into open space and playing some good passes into the feet of teammates. I made the following observation from the game:

Caroline played well today. Although she dribbled extremely fast at times and failed to keep her head up she was able to connect nearly all of her passes. Her passes were well weighted into midfielders who switched the play or into forwards who received and kept possession. Sometimes she doesn't see opposing defenders step in front of forwards when passing to them (Field note: February 25, 2012).

Caroline's performance against North University was also very good. Although we lost by two goals to one she was very dominant in her defending and especially effective in attack. During the game she made some excellent passes into the forward players and switched it at the correct time to central midfield players:

Caroline played a very good game today. Her decision making was very good. She played quick passes into Irene and continued her running to support passes. In the last two minutes she won the ball on the right side and played a quick forward to pass to Faith who played a through ball for Hailey who scored but was called offside (Field note: February 25, 2012).

Caroline played in four competitive matches during the spring, but didn't think it was enough time for her to successfully implement the first coaching point on a consistent basis. At the end of the season she commented:

I think that I haven't done very good. I think I did better as the season kinda went [along]. I don't think it's something you can fix in a week's time or through an interview. I think that's one of those things where this had to be second nature.

Second, I showed her examples of when she dribbled with her head down which resulted in losing possession of the ball. I advised her to keep her head up when dribbling down the field.

By the end of the spring season she felt Caroline believed the quality of the upcoming opponents affected her concentration and implementation of coaching points viewed on video. She said "I think [South University] is the main one that I was dribbling with my head down and I think I was probably just a little cocky being like 'Ah it's [South University] whatever.'" It appeared Caroline remembered one moment from the second half where she "whiffed the ball along the side-line" which left her "cringing" and thinking "I'm not doing that again." The reality was Caroline did extremely well at dribbling during the first half and she contributed to a State University goal,

> With about ten minutes in the first half Caroline flicked the ball over an opponent's head just outside our 18 yard box. She dribbled about 70 yards and as a center back came out to close her down she slipped the ball to Irene on the right side of their box. Irene took one touch before hitting it high into the near top corner to make 3-1 to us (Field note: February 25, 2012).

When State played stronger teams Caroline was reluctant to even dribble with the ball. She admitted to being nervous and aware of the danger of making mistakes and would look to make more runs without the ball than with it.

At the end of the spring Caroline recalled the game against North University and remembered "I was on the outside. I was just more aware of erm, if I did, was gonna like lose the ball there'd be a much bigger after effect, like reciprocation." Unfortunately, this fear of making mistakes affected her negatively and led to negative self-talk during that game. "I was like 'really can't mess up' and so I felt I didn't even dribble as much nearly [against North University]." Although it seemed Caroline felt as if she didn't dribble much during the game my observation of the game gave a different story:

> Caroline was very good at stepping in front of opponents and winning the ball. She continued to dribble the ball forward relieving pressure on our defenders and would often create opportunities for us by playing quick passes after winning the ball and following her pass. In the last 15 minutes she dribbled twice through the opponent's midfield and created numbers up situations for us (Field note: March 24, 2012).

> In the same sense Caroline took fewer risks against East University. She did manage to dribble the ball a few times on the right side of the field but this time she made quicker decisions: "Caroline connected a lot of early passes tonight with Olivia, Faith and Irene. She kept her head up quite well and looked for the easy option when she had it." (Field note: April, 4, 2012).

Team Review 1

On Wednesday February 29, 2012 I conducted a team review session of the game against South University. Caroline believed she remembered more information from the individualized PA sessions than the team reviews. She told me, "When we watch the film as a team and you say one specific thing to one person, then I don't remember anything

you say or what anyone else [says]." On the other hand, she commented "When you're watching individually I think its fine because I'm so gonna automatically remember it." She attributed this to her desire to take responsibility for her actions. Therefore, any coaching points which involved her specifically increased her attention and she would remember them. She stated,

I do remember from the film you saying the defense was too spread. So, I remember that, so I have to be like 'we need to pinch' or I do remember the specific things you said about the defenders, like when [Jacky] goes forward then I need to drop in. But I don't remember anything you said about anyone else…so the whole rest of it…I don't really remember.

Although Caroline found it difficult to concentrate during team review sessions she did acknowledge she tried hard to take everything on board since she felt it could increase her understanding of other player's positioning on the field, which in turn could help her organize players on the field.

A few days following the team review I handed Caroline a breakdown of her individual statistics (Appendix J) from the fall 2011 season. Toward the end of the season Caroline explained the enormous impact these statistics had on her motivation by declaring "I think the only thing that's motivated, that has changed my motivation is….I wasn't really motivated to do anything until we got those packets." She explained, "Usually I was one (first), two or three but one of them I was like six and I was like 'I wanna be up there on every one'…I wanted to be at the top." However, she believed a better indication of her progress were the little things; her positioning as a defender and

tucking in when the ball was on the other side of the field. In addition, she believed the use of match statistics was an accurate representation of her performance. She stated,

> It (Prozone) keeps track like, an actual number because then you know like how we were saying I can be like I think I played a good game but if I look at the sheet and it says only thirty percent of my passes were complete, clearly I didn't play a good game. So it kinda holds you more accountable.

Individualized PA Review 2

On Thursday March, 1, 2012, I reviewed the South University game on video with Caroline. I reviewed the decisions she made in the game when running forward to support a wide midfield player. She recalled a specific coaching point from the video session:

> [I] remember…I gave [the ball] to [Kelly] and then I kept running down the side and you were like, 'you know you could do that but there's three of them there so even if you did get the ball back there's nothing really you could do with it and [Kelly] didn't have anyone supporting her'…so then you're like 'next time just drop back for her into that space and she can play it to you and she can spin off' and I can either switch it or give it back to her.'

The next week in training, Caroline remembered this coaching point and used short words to remind herself what to do. She stated:

> I started making a run to [Irene] and then I looked up and there's three of them (opponents) and I was like 'We just talked about not going forward all the time so support her from the back.' I didn't think of it in sentences like that but I was more of just like 'too many, get back.'

When asked why she remembered it she reaffirmed her belief that one-on-one sessions were more conducive to recalling and applying coaching points. In her words:

I think because we had talked about it individually…. It was just me and you….and we were only looking at me. I paid a lot more attention to what you were saying because when you're talking in group or team review sessions I'm just kinda like watching and, sitting, but when it was me and you like, I was like 'Oh, I'm on it, I got it,' so then I for sure just remembered that exact one point at practice.

Caroline played very well against East University on Wednesday April 4, 2012. The information she had received during her individualized PA review and again from trying to apply this information during practice must have helped her because her decision making was very good as an outside defender:

Caroline very rarely lost possession of the ball tonight. She looked to pass it early to Kelly and support her from behind. The times she did go for a wall pass (one-two) were done when Kelly had enough time to pass the ball back to her (Field note: April, 4, 2012).

On Friday March 9, 2012, State University closed for spring break. The players left with a training plan and were told they would have to take the beep test (also known as multi-stage fitness test and yo-yo endurance test) upon their return. Overall, Caroline believed the break was beneficial; she even improved her beep test score upon her return. She stated:

I thought it was good to take a little break from soccer, and I went home for the

last five days of it. I wasn't even doing anything crazy, sitting at home, so I don't

think that affected my play or my fitness.

However, by the end of the season Caroline believed a combination of taking a

break for nine days, a change in the intensity of team training, and the looming summer

break affected the team in a negative way. She explained,

I think spring break isn't what got us out of shape. I mean it probably was the start

to it. It was like going downhill from there; that was the beginning. We were

doing so good fitness wise and then spring break is probably when it turned.

She commented "[From] a team standpoint we didn't do any more fitness at practice.

And I know no one does anything outside of practice." She further identified the team's

fitness training included punishment runs for players who lost training games,

competitions etc., but these were stopped after spring break and were seen by Caroline as

part of the reason behind a drop in fitness. Along with the perceived drop in fitness levels

was a lack of focus by the players, something which she attributed to the time of year:

I don't think spring break caused people to lose focus. I think it's more of, it's

almost summer. That's what's causing people to lose focus. So it's not the fact

that we got on a break it's the fact that, it's a countdown.

Individualized PA Review 3

On Thursday March, 29, 2012, I conducted my third individual review session

with Caroline and discussed two coaching points. The first coaching point discussed how

she could organize the defensive unit more efficiently. In particular, I showed her how

she could help Daisy organize the defensive unit, and how she could organize the whole

team and not just the back line. During the North University game Caroline had been moved from the outside defensive position to the center of defense because of an injury to Daisy. This was welcomed by Caroline:

I got pushed back to the middle when Daisy got hurt. So I think it was more the organizing I think I kinda fell back into my role, of its easier, way easier from the center to kinda take control and organize but that wasn't really a new coaching point because I did it last year.

As a freshman in 2010 she had found it difficult to organize the defense. She believed this was due to a combination of two things. First, her club team held a much higher back line and "pressed further up [the field.]" Whereas, "the big thing here is when there's no one on the ball we drop, quick sprint back." She added, "So that was kind of a big adjustment for me, so I was for sure second guessing myself in like I don't wanna say anything because I could be saying the wrong thing anyways." Second, she worried about upsetting and hurting the feelings of upperclassmen. However, through experience and talking with her coaches and teammates she was able to alleviate concerns and worries about tackling this responsibility.

The next game was at East University on Wednesday April 4, 2012. Caroline was asked to play as an outside defender, a position she played quite a lot at club level but very rarely did at State. She found organizing the team difficult as an outside defender. The position was physically demanding and she had to make several forward runs to support the attackers, and this affected her ability to focus and organize the team. In addition she recalled having trouble helping Daisy to organize the defense as well. She stated.

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I was mostly yelling like 'Hold' or 'Drop' or 'Step'….cos when I play center back I'm trying to do the whole drop step plus like 'you mark her' kinda like figuring out marks and kinda like getting our midfield [organized], and from the outside I didn't even try to organize the midfield at all. And I was still doing drop and hold but I wasn't organizing marks but I was yelling at [Daisy] and [Jacky] too, so I felt that was something else I was doing was like telling everyone what to do and then tell them to tell everyone what to do.

Caroline stated the responsibility to organize players wasn't a new coaching point but she could see she was growing into a leader on the field. She recalled asking Daisy in the East University game "What do you want them to do? Like tell them what you want," and she noticed Daisy responded positively to her and "after I would tell them they would say something, the right thing, but it was quiet. They don't yell out enough. So sometime it worked out good." Caroline believed she was more confident of leading the back line and telling people what to do.

My second coaching point with Caroline discussed the timing of her runs forward, and in particular when to overlap a wide midfield player. This coaching point was an extension of the coaching point initially discussed on Thursday March 1, 2012. She told me "That's something that I've been thinking about probably more than any of the other [coaching points]." She attributed this to three factors. First, she is able to think more and make better informed decisions without the ball at her feet. She stated "That is something that I do think about before I'm doing it. That would be something I guess since I don't have the ball at my feet I am thinking more." Second, she told me "getting forward from

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the outside positions is more fun," and third, she stated "the consequences of losing the ball further up the field meant it was less risky for her to make runs.

When I asked how she knew when to make the forward run on the field she said she would look for visual cues to guide her.

Either a center back or center mid would play the ball. I would start creeping when I see Daisy or [Jacky] kinda lift their head up, or Faith kinda looking around. That's when I would kinda start pushing up a little bit and kinda leave the back line and… I was looking around to see how close [Leanne] was to the side-line and how close she was to her defender or how close my forward was to me and from there kinda be like 'Do I have enough room to make it around her? Do I have enough time to go around her? Is she gonna play it to me if I go around her?' Or then if their back line was really high I just need to get wide and stay behind her'.

Caroline mentioned she particularly focused on the body position of our wide midfielder to help her. She added:

If they (outside midfielder) get it from the center mid and their back is facing, like if we're attacking this way and their back is to where we're attacking. Then I'll stay behind. But then if they turn then I would usually think more about going for it cos then they could take it in and then I'll keep going.

Caroline stated she evaluated this decision during games and would use this to help her make better decisions in future games. She admitted being concerned about where the blame would lie if a mistake was made. She explained "Well. If I do make the

run and it was a good one and then I get a bad ball then I'm like 'Well at least I did my job and I did the right thing.'"

Team Review 2

During the evening on Thursday March, 29, 2012, I conducted a team review in the State locker room. I used clips from our game with North University to convey two coaching points. The first coaching point was to show how North University had successfully dribbled and passed the ball out of their defensive third and into the middle and attacking thirds of the field. This included examples of defensive players dribbling the ball forward to create a two against one opportunity. The following day I delivered a field session with the State team to show them how to recreate what we had viewed on video.

Caroline noted there were several issues with that field session. First, she recalled several key players missing due to injury. Second, this restricted the session to a small sided game which she believed affected her understanding of the coaching point. Third, she noted "I think it was a good idea but I think it just wasn't a good practice that day because it's Friday and it was raining and no one was like even trying almost." The session was indeed lacklustre.

> I coached today. The players were wearing their rain jackets as it was raining heavy by the start of the session. I designed a relatively simple session to encourage Caroline, Ellen, and Brittany to dribble out of the back line to create passing opportunities and 1-2s. The teams were asked to pass and move around the field as a warm up. Both teams looked sluggish and disinterested. There was

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very little movement from both teams and I could tell they didn't want to be there. (Field note: March, 30, 2012).

For the rest of the spring season Caroline believed she struggled to dribble the ball out and create two against one situation's on a consistent basis. She attributed this to the ability level and tactics of the opponents. She explained,

I think because Locale University had a much higher (forward) line than East University and I think it goes back to them being a better team. And so, more risky. Cos one time I did dribble a little bit, went to pass to Mary, passed it to the other team and then sprinted back to the end line.

While playing as an outside defender against East University she faced a team which dropped their wide forwards back when defending. She stated this confused her and left her with unanswered questions on the field, "like do I keep going? Do I stay? Cos Jacky's going forward and we need three back. So do I need to pinch?" This caused her to stop running forward when Jacky dribbled past the half way line and she would drop into the back line to make three defenders. The tactics used by East University had caused clear uncertainty in Caroline.

Caroline played in center of defense against Locale University. Caroline recalled how all of the State defenders failed to create two against one situation's on the outside.

Well I remember during the Locale University game for sure, just from being center, well I didn't really dribble up that far but remember thinking and yelling at Mary get higher or Jacky was dribbling I was telling Ellen to keep going with her. Mary wasn't on the same page I just think she was thinking the same thing that I was probably thinking when we played East University.

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The second coaching point from the team review session was concerned with our defensive players passing the ball forward to our attacking players. I identified who she should look to pass to in the space between the opponent's defense and midfield units. Unfortunately, Caroline couldn't recall a time where she was able to connect a pass with a teammate in this space against East and Locale University. She believed this was a spacing issue with the midfield and forward players. "I think… it's hard for them (central midfield players) to find the seams and to create space when our forwards aren't doing anything." Caroline felt the midfield players didn't have enough room in the space to run into due to a lack of movement from the forwards. Having recognized the problem on the field Caroline confronted the attacking players during half-time against Locale University. She recalled telling Irene "If you say '[Kelly] you check in and I'll check out' and then there's some kind of movement going on and we can probably create some space and create something but ya'll are just running in straight lines right now and there's nothing we can do.

Individualized PA Review 4

On Thursday April, 12, 2012, I reviewed the second half of the East University game with Caroline and made two coaching points. First, I showed her again when the correct times were to dribble forward as an outside defender, and how to create and execute a two versus one scenario.

Second, I reviewed the goal East University scored against us which tied the game at one goal each. One of Caroline's responsibilities as a central defender was to hold a defensive line outside of the 18 yard box when the opponents had a deep free kick; only dropping when they were about to kick the ball into the box. However, against East

University she held a defensive line inside the 18 yard box; which allowed an opponent to challenge the goalkeeper and eventually score.

During the review she became increasingly surprised at her performance. She stated "I think just since we tied and that was such a bad game…you just assume everything you do is bad almost, you can only remember the bad things." When pressed further she recognized a common theme throughout the spring games and commented,

I think that I do a lot more than I actually do, like I think I make a lot more runs and I think I have the ball a lot more than I really do cos after the [South University] game, after the first half I was like 'Yeah, I had a pretty good first half' and then I watched the first half I was like 'I didn't do anything.

Caroline confirmed this in a journal entry dated March 1st 2012. It stated "Today we watched the [South University] game. The first thing I noticed was that I felt like I ran a lot more than I actually did." She suggested this may be because "it all blends together when you're on the field and you only remember the really really good stuff or the really really bad stuff." She added even though she believed she "didn't do anything really bad in the first half [against South University], all [she] was thinking about were the good things [she] did, and was like 'Yeah I did good.'" However, she went on to say "but when I do something bad I'm like 'Man, wrong, shouldn't have done that' and then, I mean the bad ones stick with you more than the good ones.'

The next day on Friday April, 13, 2012, we played Locale University on the road. During the game Caroline was mindful of the goal East University scored. "I remembered that one [coaching point] for sure because we got scored on by [East]." Caroline used her

problem solving skills to remedy the situation. She recalled changing what she would usually say to the team to avoid making the same mistake,

So I remember setting the line and being like instead of saying 'drop', when everyone had their marks I would tell them this is where we're gonna drop to. And get everyone like 'we're dropping to the PK spot.' Or 'we're gonna drop to the six.' And so they all had the visual cue and I didn't just say 'drop.'

When asked why she remembered that coaching point she added apart from "eventually not wanting that to happen again," she said,

Well that was a hundred percent on my shoulders. If you give me a coaching point of a two v one, if I don't have the other person to go with me then, it sucks. That coaching point was lost. But if it is something I can control a hundred percent then I think yeah I do take…I mean that's what the whole running forward or when to stop it doesn't matter what the other person does like that's completely a hundred percent my decision, if I wanna go or wanna stay.

Although Caroline had tried to solve the problem herself on the field she did hold an incorrect line during a deep free kick by Locale University:

During the first half Locale had a free kick from a similar position which East University scored from the other night. Caroline held our defensive line which was still inside our box and not outside the 18 yard box. (Field note: April, 13, 2012).

End of Season

On Friday April 20, 2012, Caroline reflected on her experiences of playing football and receiving video-based feedback. First, she told me it was a "rough" season

and she felt as a team they "weren't doing the basic things which all the stats are. Like we weren't connecting passes, we weren't trapping like keeping the ball at our feet. Like basic things like that." She attributed this to injuries to key players and the combination of lowered fitness and lack of focus following spring break.

Caroline stated at the end of the spring season that watching video helped her evaluate decisions on the field. She explained, "It makes me think more….it makes me re-think a decision, if I should change my mind and do something else. But it hasn't been like 'This makes me wanna play better.'"

This "afterthought" as she described it, occurred following good and bad decisions. When asked why she didn't think about coaching points in the moment she stated:

> On the field I think just cos there's so much going on when I have it (the ball) at my feet, and in the moment I don't hear you guys…I kinda like block everything out for a second and so thinking doesn't interfere with playing."

However, following a decision on the field she would reflect and evaluate it. She said:

> It's not like words running through my head like 'I need to go away from these players' but after I passed I'm like 'I probably should have kicked it backwards' or after I played the ball back to [Norma] and then I see all the midfield kind of crowded and like 'Okay that was probably for the best.'

Additionally, Caroline stated her decision making had improved over time and recalled one instance from the game against North University when she recognized a

player in open space and played a successful forward pass. This led to a State goal which was eventually called back for off-side:

> I do remember when we scored when it was offside, and I kinda ran to the outside and then their forwards and their whole midfield was at the center circle and [Faith] was kind of at the top. I remember passing to [Faith] because I remember saying 'There's no one around her so play it there.'

Caroline described several benefits of using video. First, she stressed the importance of going out and practicing the coaching points soon after watching video, and this she felt, was crucial for learning to occur. She suggested she thought about coaching points from the video sessions a lot more when the training sessions were game orientated or directional with goals instead of a possession game. She declared:

> I think when we play five versus five or going to goal then it's more of a game we're doing, then I think [about the coaching points] a lot more, or when we're playing with the two smaller goals on a smaller field or defense versus offense it was easier to kinda apply them cos it was more realistic.

Second, she enjoyed watching herself do good things on video as this made her feel good and reaffirmed what she had been working on. However, she stated "viewing games to see what went wrong was crucial as it [allowed the players] to see what went wrong and be able to fix it." This was important because "if you never see what you're doing wrong then [you're] just gonna keep getting that wrong every time." Third, she commented on the effect the video camera had on her performances in training when the head coach or I were missing. She commented:

Everyone was like 'They probably watch the film' or whatever so when they were saying it's filmed and we were doing all that crossing stuff I was like 'XXXX if they're gonna watch this I'm gonna be making my runs', so even if you guys aren't there I was like 'well if they're gonna watch it then I at least don't wanna them to be like '[Caroline] sucked today, like she didn't do anything'

Even though she believed she gave 100% effort in training the video added something extra to the team dynamic. She explained "if it wasn't there and it would have been 'Oh that's just one run, I didn't make it, oh well', but I was like "I'm just gonna do it"

Caroline identified two problems with watching video. First, she stated life as a student athlete was very busy. She claimed:

We just have so much to do, like the past week you know how I said I've been doing these tedious flash cards, so I go to class from 8 to noon. Then I'll be in the library from noon to 4, till treatment. So then right after that practice. And then, so it's just like so just tiring I guess.

This congested schedule along with "a lot of tests coming up" left her and her teammates mentally tired and "by the time we get to practice it's more of just 'Okay, I'm gonna make a hard tackle.' Instead of trying to go through that thought process of what were all those coaching points I was supposed to do."

Second, she stated "It just kinda sucks to get called out in front of everybody when everyone is watching together," especially if it happens all the time.

Faith

The third case study focused on Faith, who entered the spring 2012 semester as an academic senior with one year of athletic eligibility remaining. The case report begins by exploring her football career prior to attending State University and any experience she had with receiving PA as an athlete. Next, the fall 2011 season is discussed with reference to her experiences while receiving and responding to video-based feedback session while representing State University. Following this the spring 2012 football season is explored in detail and includes her experiences of receiving and responding to video-based feedback sessions. It is organized and presented chronologically and is based on her receiving the following video-based feedback sessions: Individualized PA review 1, individualized PA review 2, team review 1, individualized PA review 3, and team review 2. Lastly, an end of season review with Faith is discussed.

Prior to Attending State University

Faith was born and spent the majority of her youth growing up in the south region of the US. During her high school and club football career she garnered several awards and accolades. In 2004 she was named Most Valuable Player and Newcomer of the Year as a sophomore for her high school. Two years later she won the Offensive Player of the Year award and in 2007 was elected captain. Also in 2007 she earned her fifth All-District honor and Midfielder of the Year award; helping her team to a district and regional title.

In 2006 Faith was part of a club team which took runner-up at the Region III Premier League West tournament and State Cup. A year later in 2007 she won the State Cup and again progressed to USYSA Region III Premier League West tournament. Faith

had no experience with PA during her time playing club soccer and prior to entering college.

Fall 2011 Season

Faith believed watching upcoming opponents on video was helpful. They helped her to understand her upcoming opponent's style of play since "some teams kick the ball long and some pass it short" and "you just kinda saw and knew what they were gonna do in the game." This was beneficial but sometimes "they changed what they were gonna do," which she felt happened a lot on set plays. Faith said she used these video sessions to check out the player she was likely to face in the game. She declared,

> I like to see what my player looks like, that I'm going against. How big she is and, um, you get to see how their style of play is, like what they're bad at. So you can try and make them do what they're bad at.

Unfortunately these sessions were sometimes boring for Faith. She told me she hardly watched football on television and this was possibly the reason why she had trouble understanding what exactly was going on. She commented:

> Maybe we need to do it in slow motion cos it's all really fast and I couldn't see it all. Like, this person's doing this because this, but it just looks like a big clutter if you asked me. Once you hit play it just goes zroom.

Faith found the motivational videos shown during the fall 2011 season fun, enjoyable and confidence boosting. She told me, "They kinda get us pumped up and ready to go and, like see that's more like confidence like 'you're good, go win.' On the other hand the oppositional videos were more serious and designed for learning."

Faith ended the fall 2011 football season as an academic senior with one year of athletic eligibility remaining due to a red shirt year in 2011 (junior year). As a freshman she started in 17 of the 18 games she played in collecting two assists. As a sophomore in 2009 she started 9 of the 19 games she played in scoring one goal and assisting on another goal. She received a season ending injury during the first game of the 2010 season and this kept her out until 2011 where she started in 18 of the teams 19 games collecting two assists.

Faith was now coming into her last year academically and athletically. She was determined to end on a good note, possibly qualifying for conference and national tournaments; something she had failed to do in her collegiate career. Personally she wanted to achieve "a big number of assists…and maybe a few goals," and was hoping reviewing film would help her achieve this by showing her "where to play the ball," and what "types of passes to [play]." She stated she very much played to win because she is a "competitor" who likes "to beat people and talk crap to the other teams."

Prior to the start of the spring season Faith stated she expected to "get better in a few areas" and "to improve" by seeing if her numbers (statistics from Prozone Matchviewer) improved. However, for the most part she "kinda expected what to see [on film] since [we'd] done it before." She perceived the oppositional analysis reviews as a compliment to the hand-outs (Appendix I) she was given when for preparing for games.

Spring 2012 Season

The spring season started with a field practice on Monday February, 6, 2012. The following day Faith joined her teammates in the State University football locker room to watch an EPL game between Manchester City and Tottenham Hotspur. Also, the team

watched a recording of Manchester United and Tottenham Hotspur on March 20, 2012. The intention was to show the team examples of elite level football, and to have each player observe a professional player who played their position on the field. Faith suggested the camera view allowed her to see "what's about to happen" due to the use of "better technology," and this showed the EPL players as very spread out across the field.

In addition she noticed the professional players passed the ball a lot "and how they just did it really simple, like, it was one, two touch before they took the player on. They didn't stop the ball." Faith believed seeing this on film reinforced the State University coaching staffs mantra of "two touch only," since we had recently changed our playing style from being a direct playing team to a possession orientated team. Video had shown her how to make changes to her game and this didn't present any problems since her previous coaches had had asked her to "play it fast, one, two touch."

Individualized PA Review 1

On Monday 20, February 2012 at 1pm I sat down with Faith for our first individual review session. We watched two games from the fall 2011 season and this gave me an opportunity to review her decision making when passing the ball. I used Prozone Matchviewer to select specific clips of her passing to attackers when they were outnumbered by opponents. I advised these were the times she should turn and switch it to the other side of the field.

Faith believed her decision making with regard to this coaching point improved throughout the spring season. During the beginning of the season she would "look on the same side and try to find someone there" but usually the forwards weren't showing for a pass, instead they were "just standing, so most of the time [they weren't] an option." Or

she "would look for a one-two or something where all the people were" But over the course of the season she noticed she started to "open up [her] body a lot more" and look for a switch to an outside defender.

Faith believed video helped her understand this coaching point and in particular when she should switch the ball. This carried over to training sessions. She said "I think about it more, especially in the possession games…I try to turn away from pressure…I guess I look at it as more of going away from pressure than switching the ball." However, in games she felt more aware of the danger of losing possession of the ball, especially in the defensive third of the field. She declared, "When I have a defender right up my back I get nervous, because I'm nervous to lose it in that part of the field, as it's close to our goal."

Toward the end of the season she noticed the outside defenders liked to receive different passes. She would play the ball to Ellen's feet because she knew she liked to take "small touches" and "dribble down the field." In contrast, Caroline preferred to receive the ball in front of her because she liked to take a big first touch. Understanding these preferences made it easier for Faith to make good choices when switching the ball. She told me at the end of the season that "switching it from one side to the other came easily [to her and] it was easy to figure out, remember and learn." She stated the reason was because she "saw it on film" and "it was common sense" to her. Knowing when to switch the ball eventually became second nature to her.

The defensive ability of the teams we played during the spring affected how well she switched the ball. Against South University she declared, "It was really easy against them because they didn't pressure us up high very much…especially in the second half

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where I had all day on the ball." Even though she had time to "dribble at them and then maybe find a forward" she kept thinking about making quick decisions. This allowed her to keep the ball moving and switch it to the outside defender on the opposite side of the field.

Faith played extremely well against South University. She was always trying to take a touch into open space, usually across her body and look for wide forwards to pass to:

> Faith tried to keep the ball moving on her first touch across her body looking for the switch. Although she sometimes took a bad touch she was able to find wide players who were one-on-one with their opponent (Field note: February 25, 2012).

The game against North University presented different challenges when attempting to switch the ball. She felt the game was "a little more hectic" because they were "a better team…and they put pressure on her" This forced her to "let [the ball] run across [her] and hit it [with] one touch."

The game against East University was entirely different. She believed she hardly got the ball because the opponents were right on top of her and her teammates were reluctant to pass to her when opponents were near her. She stated, "They all get nervous about that, playing it to me and seeing if a player is near to me…and against East University I think a lot of times they saw someone near me and wouldn't play it." Overall she felt the team "never switched it through [her because] the outside backs kept trying to force it into the forwards."

Also during the individual review she noticed how spread out the opponents midfield players were when in possession of the ball and wondered why we didn't spread out as much. I told her this was a very good observation and it was something we were going to work on. Faith decided to discuss this with her teammates. She told me, "I had to make sure all the midfield people were on board, all three of us understood it… it was a little frustrating because the other two didn't watch it with me and see it."

On February 25, 2012 we played South University and our team was more spread out on the field:

> The team did a nice job today of spreading out when we had the ball. The back
> line created width and the center backs split to allow us to switch it. Faith kept her
> defensive midfield position but sometimes dropped on top of the center backs.
> (Field note: February 25, 2012).

Faith also commented on how well our team was spread out against South University.

> I don't know if [South University] just kinda sucked or whatever, but like, we
> were really spread out in the midfield way more than normal, but I thought it
> worked fine and it was easier to find the passes. It wasn't like; we're so congested
> with everyone.

She believed it was a lot easier to pass the ball because everyone had transitioned to offense. She told me, "once we got spread out the numbers got more spread out and [I could] find the one v ones easier." Faith played some good passes into wide forwards against South University, especially Hailey who had time and space to beat her defender: "Faith played several balls to Hailey who was open in space on the left side. Hailey could

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have received more if she had been checking to the ball." (Field note: February, 25, 2012).

Individualized PA Review 2

On Monday February, 27, 2012, I sat down with Faith and reviewed two aspects of her game. The video clips were produced using Prozone Matchviewer which included footage from three different games during the fall 2011 season. My first coaching point involved her decision making when closing down an opponent. I showed her examples of when she had dropped into our defensive line causing her midfield opponent to be free in the midfield. This left her too far away from her opponent and when she closed her opponent down she would over commit and mistime a tackle.

Faith explained she liked to stay close to the back line because they don't like to pass to her when she has opponents near her. She explained,

I guess I like to get close to them so they feel safe to pass to me cos a lot of the times they're like 'you have a man on your back' and they won't pass to me. Like Caroline will never pass to me if there's a person on me…I told her its okay but she kinda freaks out about it cos we're in our defensive third of the field.

Faith reflected on this video review session; writing a journal entry dated February, 28, 2012:

Yesterday in film we went over defending and heading. During practice I tried to work on my defending and focus on that but I don't think I did very good. I guess another reason why I have a problem with diving in is because people are always telling me to step to the ball so now I am confused and probably over think when I should get close and close down.

During the game against South University Faith was partially at fault for a goal we conceded. She closed down an opposing forward without slowing down and was beat on the dribble. An observation I made from this game supported this:

Midway through the first half [South University] had a free kick in a central position about 30 yards from our goal. The ball struck our wall and after a few short passes Irene played a soft pass to Faith who missed a 50-50 tackle. The player dribbled through and went around [Jacky] too easily and hit an early shot to left of Allison who should have saved it but she wasn't set (Field note: February, 25, 2012).

The game against North University was much better for Faith. Her defending in midfield improved from the game against South University:

Faith was much tighter to her opponents today and I think because of this she won a lot of challenges and nicked the ball away from them. Her starting position seems to be closer to them and this allowed her to close down and not give her opponents time to turn and dribble at her (Field note: March, 24, 2012).

At the end of the season Faith told me she still had trouble implementing this coaching point. She explained "when we did defending we talked about my spacing…but then in practice they (defenders) were like 'get closer, get closer.'" Faith had remembered she and I had talked about her spacing when defending in midfield and for her not to get too close and dive into a tackle. Unfortunately other players were giving her different instructions. She thought this was "kinda frustrating" since "some people…don't understand what [you have] to do to help [your]self." Faith decided not to listen to her teammates on the field but off the field she took time to "explain to them a little bit cos

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they hadn't seen the film." The meeting with her teammates went well and she felt they would understand in future what she was doing.

In the game against East University Faith was tighter to her opponent. My advice to her about taking up a good starting position may have confused her which is why her defenders were telling her to get closer:

Faith won a lot of challenges tonight. On several occasions she didn't allow her opponent to turn with the ball. A few times she found herself too far away and it was her body position and closing down ability which led to her over committing in challenges and the East Players were able to dribble around her (Field note: April, 4, 2012).

My second coaching point discussed her body position and heading technique from our goalkeeper's goal kicks and punts. I advised her to take up a side on body position so she could see both the ball and her opponent. She told me,

I get side on. I start in the right body position and see Allison kicking it and the ball, but when the ball is played I end up jumping into the player, it seems the kick always goes over my head.

I asked her why she thinks she jumps into the opponent and mistimes the header. She stated,

I feel caught like I can't move, cos she (opponent) can always back up. I feel confused like I don't know what's going on like within those two seconds. I'm waiting to see where I need to react to next. But when the ball comes to me in the air I freak out. I don't know if I can head it or not. Is it actually gonna hit my head? I guess I'm confused about the timing. I've never been able to head the

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ball, even in club. I'm not sure what to do, like I don't feel capable of doing it. It's a lot to do all at once.

Faith struggled with her heading against North University. On several occasions she either mistimed a header or didn't move toward the ball. An observation I made supported this.

Faith's body position on Allison's goal kicks is still square to the ball instead of side on. I think this is why she is unable to challenge opponents for it. On opponents goalkeeper punts she still doesn't time it well either even if the ball is close to her (Field note: February, 25, 2012).

Against East University she struggled to time her jumps and compete for balls in the air:

Faith is still too square on goal kicks. Even the times when the ball is there to be won she doesn't attack the ball like she should. She looks afraid to put her head on the ball and many times she doesn't challenge for it in the air (Field note: April, 4, 2012).

At the end of the season Faith had doubts whether she improved her heading. She attributed this to a lack of practice and the teams playing style. She stated "I don't think I've improved because we don't really do goal kicks in practice. Allison usually just plays it to the outside backs and they dribble forward with the ball."

Team Review 1

On Wednesday February 29, 2012 I conducted a team review session of the game against South University.

At about 4pm today I conducted a team review of the [South University] game and the atmosphere was very quiet. It was great to see the girls pay close attention. The players were situated in a horse-shoe arrangement around the TV with some players lying down on the locker room floor. Throughout the video I made the general coaching point of switching the ball from one side of the field to the other, especially if they had more players than us. The mantra I used was 'pinch it one side, get it to the other side.' I was conscious of not criticizing individual players and in general I kept comments to a minimum to allow the players to focus on the game (Field note: February, 29, 2012).

Faith told me she preferred individualized PA review sessions and team reviews at different times of the week. She told me, "I think the one-on-ones are helpful so you can see it yourself. One-on-ones are good throughout the week and then before the game do a team one."

On Friday March 9, 2012, State University closed for spring break. The players left with a training plan and were told they would have to take the beep test (also known as multi-stage fitness test and yo-yo endurance test) upon their return.

Individualized PA Review 3

On Monday March, 26, 2012 at 2pm I reviewed the first 20 minutes of the game with North University. I made two coaching points. First, I showed her examples of when she got too close to our wide forwards and how she could space herself more appropriately in midfield. Second, I showed her examples of when she could have made passes to attacking central midfield players who were in the seams between the opponent's midfield and defensive units.

She recalled from playing in the game:

The seams weren't as easy to find against North University. I didn't have time to

dribble or turn…I didn't really get the ball that much because our midfield wasn't

how it should be…the other two weren't getting high, and so it turned out to be a

two against one because their center forward dropped off and their attacking mid

pushed up so they were on us kinda.

Team Review 2

During the evening on Thursday March, 29, 2012, I conducted a team review in

the State University locker room. I used clips from our game with North University to

convey two coaching points. According to Faith showing another college teams successes

on video was good "so people see and believe that it actually works, for those who are

sceptical." She told me "A few years ago people were saying 'we're not gonna listen cos

it's not gonna work' so maybe if they saw another team doing it and working they would

understand it does." She explained. "North University showed us how it will work and I

saw what [South City University] were doing and it worked also."

My first coaching point was to show how North University had successfully

dribbled and passed the ball out of their defensive third and into the middle and attacking

thirds of the field. This included examples of defensive players dribbling the ball

forward to create a two against one opportunity. The following day I delivered a field

session with the State University team to show them how to recreate what we had viewed

on video. Faith recalled several problems with the session. She said. "That session sucked

cos we didn't have a lot of numbers so that was kinda frustrating."

Although she remembered her individual coaching point of losing an opponent in the seam," she added the "area was really small so I felt like I couldn't get anything going or do anything. There was a lot of thinking too so that's why I was getting frustrated." While in the session she remembered thinking "why do I have to think so much?" and she stated "There were too many restrictions cos in the real game we don't have that many restrictions on us, we just go with the flow."

The second coaching point from the team review session was concerned with our defensive players passing the ball forward to our attacking players. I identified who she should look to pass to in the space between the opponent's defense and midfield units.

Individualized PA Review 4

On Monday April, 9, 2012, I reviewed the second half of the North University game with Faith. I showed her more examples of when she had dropped into the defensive unit which caused her midfield opponent to be free in the midfield. She told me defending was easier if her opponent was checking away from her. She noted:

> I guess if they're checking that way and I'm behind them I can stay really close to them…but if they've already received the ball and dribbling at me I try to keep my space for a little bit until I see the time to go and win the ball, like when it goes to the side is when I'm better when it goes to the side.

> It seemed this preference to wait before closing down had caused her undue

problems. She admitted she needed to "be more conscience about it and [get] closer." She declared she sometimes got "worried about another player," especially if "someone's not marked up." She asked me "Do I go to the ball or drop off? I don't know whether to stay

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or go." She explained the game against East University presented her with similar problems but she believed her defenders were the cause of her confusion. She told me:

Against East University I felt like our back line was getting confused with whom their mark was and they were passing some off to us, like the outside forwards. They kept trying to pass those on to us and that messed up our marks in the midfield so that was really frustrating. We got caught in no man's land again like do I go here or do I go here?

End of Season

On Monday April 23, 2012 Faith reflected on her experiences of playing football and receiving video-based feedback. Faith admitted video motivated to get a little bit better "cos if you get better out here you'll be better than the person you're playing against and that goes into winning." I asked her what it was like watching herself on film. She told me "Sometimes I'm not as bad as I seem. Sometimes I think I make worse passes or something than I think." However, watching video informed her of the actual reasons why certain things didn't work out. She told me video helped her reflect and understand what it was she was trying to do. She stated:

It helps, like 'Oh that's what I was trying to do' cos like sometimes in the game like when something goes bad it's like well I had the right intentions, the ball just didn't bounce my way….like I have the right idea it just doesn't work out sometimes. I didn't completely mean to make the mistake.

She told me watching video had sometimes caused her to think too much on the field. She declared "Sometimes I feel like I think a lot, that's when I start to not know what to do." She recalled thinking too much in the East University game. She explained

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"Usually when we talk about something on film I'll try to work on it in practice or a game…or I think about it a little more but sometimes I think too much….and it hurts me." Faith acknowledged the dynamic nature of football and realized her need to be adaptable to changing situations on the field. She told me she knew she had to "try and get the ball here, and switch over here, and…turn around and do this but every single time it's not gonna be like that cos it changes…So maybe I was thinking too much."

She described several benefits of using video throughout the season. First, she enjoyed watching film as it allowed her to recall previous plays in a game and see things which she didn't see the first time. She noted:

I like watching my film…I kinda know what was going through my head or whatever…and…now I can relate to it better like 'Oh I remember in the game this happened'…but in the game I don't always look up at the field and see stuff, but on the tape it's like 'Oh'…like you get a different view of it, cos in the field you can only see so much but from the tape you see everything.

Second, Faith identified the importance of viewing "a few good" clips on film so "people don't think [they] suck all the time" and in general for people to know what they're good at. She recalled a former coach telling her "Know what you're doing right and keep doing it…know three things you're really good at and be really good at those, and pick those out of your game and like make those perfect." Thereby using video in the coaching process could "show you like what you're good at and you can keep doing those but also try to improve your few weaknesses."

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On the other hand Faith preferred to see mistakes on film and especially those which led to goals being conceded. Although she recognized "some people get embarrassed when they make mistakes or do stupid things on the field" she told me:

I don't like when we lose, but if I'm gonna watch film I'm gonna see why we lost, like what we did bad, what went wrong. Cos I knew like in [South University] game…the goals came from really good play… so I guess maybe just pull out our mistakes that we did.

Lastly, video appealed to her because she is a visual learner and preferred it over white board and paper based learning. She told me video helped her remember coaching points and even though she might not be carrying them out she is thinking about them all the time. She stated:

I'm a very visual person. When I watch the film I remember it because it stays in my head longer. I don't really like stuff on the board though…it's hard for me to follow the dots. If I read set plays on paper I'm not gonna remember it, I have to be in the box and see how it goes.

Faith identified one problem with watching video. She told me sometimes the speed of the film was too fast for her to comprehend what was happening. She could have benefited more if it had been slowed down. She suggested, "If you're gonna make us watch the set plays then slow it down." Faith believed we spent a lot of time during the fall 2011 season watching set plays and stated "I watched it obviously, my eyes are on it. But I didn't really take anything away from it. It's like a waste of time if I'm not catching on. If I'm not I know other people probably aren't."

Gail

The fourth case study focused on Gail, who entered the spring 2012 semester as an academic freshman with three years of athletic eligibility remaining. The case report begins by exploring her football career prior to attending State University and any experience she had with receiving PA as an athlete. Next, the fall 2011 season is discussed with reference to her experiences while receiving and responding to video-based feedback session while representing State University. Following this the spring 2012 football season is explored in detail and includes her experiences of receiving and responding to video-based feedback sessions. It is organized and presented chronologically and is based on her receiving the following video-based feedback sessions: Individualized PA review 1, team review 1, individualized PA review 2, individualized review 3, and individualized review 4. Lastly, an end of season review with Gail is discussed.

Prior to Attending State University

Gail was born overseas and started playing football from an early age. Between the ages of 12 and 17 she played for a club team along with Daisy. She was on the club team which won major cup titles in 2008 and 2009, winning a National silver medal in 2009. A year later she was invited to train at the National Training Centre.

Gail's only experience with PA prior to entering college was with her club team. Her coach would show game footage of her team's weaknesses when defending and attacking and he used it mainly for teaching tactics. Gail remembered not everyone was focused during these sessions since most players didn't want to play competitive football

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following their club career. Additionally, she felt didn't pay too much attention because of her young age and therefore didn't benefit as much as she should have.

Fall 2011 Season

Gail placed a high value on the opposition analysis reviews during the fall 2011 season. She told me they helped her and her team prepare for games. She recognized the benefit in seeing "the strengths and weaknesses of your opponent," and while watching she would focus on the "people that played [her] position. Things that affected [her] role or the roles near [her], just so [she] knew what [she] had to do to prepare [herself]." Doing this, she said, "helped you know what you're gonna go up against in the game."

Also, from a team perspective "it gave you a heads up on what to expect," and it showed everyone "where their (opponents) weaknesses were and what side to attack" The video sessions were especially useful when preparing for the opponents' set pieces. She commented,

> It helped watching their free kicks and stuff like that so you knew what to
> expect….you don't want to be the person on their set pieces that messes up, so if
> you were watching and paying attention you wouldn't be that person.

Gail recalled how she would use a combination of oppositional analysis video sessions and the team preparation hand-outs to prepare for games. She stated she "would make mental notes" during video. She added she would

> definitely go over them before the game...because after watching film we also got
> that sheet. So I guess I would remember the players and remember from the film
> what they would do. How they would attack you and how they liked to defend
> you.

Gail ended the fall 2011 season as an academic sophomore with two years of athletic eligibility left. As a freshman she logged 16 starts, taking 22 shots at goal with seven on target.

Gail enjoyed playing football and was motivated on a daily basis by her teammates, whom she considered part of her family. She said "It's good to be playing with people you enjoy being around, it makes it more fun, and soccer for me is a distraction from things, and just getting better makes me want to play too, it's an escape."

Prior to the start of the spring season Gail stated she wasn't that interested in watching film, but over the course of the spring season she realized how helpful it was. Initially she wanted to see the games from the fall 2011 season which she thought she didn't do well in. Early in the spring season she suffered a bad injury which was to keep her out for the rest of the spring season. This left her feeling "stressed from not being able to actual be in the practice." She explained:

> The stress of my injury was kinda like just making me not be in a very good mood. But after I had my surgery I was able to focus a lot more…but in the beginning I wasn't registering it as I should have.

Spring 2012 Season

The spring season started with a field practice on Monday February 6th. The following day the State University soccer team watched a recording of an EPL game between Manchester City and Tottenham Hotspur in the State University football locker room. Also, the team watched a recording of Manchester United and Tottenham Hotspur on March 20, 2012. The intention was to show the team examples of elite level football, and to have each player observe a professional player who played their position on the

field. Growing up Gail watched professional football games on TV. She referred to the EPL games as "fast paced," of "high quality" with "simple plays" and these made her "want to be more attacking." She stated "Watching it makes me see how creative they are and how certain players on the field create so much and that makes me…wanna try at least some of the stuff they do." She commented the players looked like "they're having fun," and the games "looked good when things worked out."

Individualized PA Review 1

On Tuesday February 21, 2012 at 3:15pm I sat down with Gail for our first individual review session. I reviewed her passing and shooting clips from two games from the fall 2011 season and commented on her decision making when passing and shooting. The clips were recorded using Prozone Matchviewer. Although Gail never got a chance to practice these coaching points during the season she did remember them:

I think seeing the individual stuff that happens like the passes, the shots…I saw

the types of passes I was trying to make. I saw the passes that didn't work. I saw

how few shots I took. That helped to see what I was trying to do, what I didn't do,

what I need to do. Just seeing the technical aspects of everything.

This first individual review session left a lasting impression on Gail. She identified a need to be more technical and realized "doing a lot of ball work like small touches, and juggling," would be of huge benefit to her and the team since "one good touch or one bad touch could be the difference between them getting the ball and not getting the ball."

A few weeks into the season Gail explained to me her frustration at being injured:

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I think it just sucks not been able to practice cos it's hard to improve on anything

cos I see what I'm doing wrong and I see what I need to work on but I can't

actually work on it yet. That's what's hard.

Team Review 1

On Wednesday February 29, 2012 I conducted a team review of the game against

South University. Even though Gail was still injured and didn't play against South

University she thought the team had improved in keeping possession of the ball. This

was due to players being "calm and…making simple passes." She told me watching the

team doing well "motivates us for next year. You see how much we're improving and

how good we're getting. We can beat a lot of teams when we play that way." Gail

suggested watching the EPL games may have influenced the way the team played:

> I don't know, the way we were attacking seemed to be…it seemed people were
>
> trying to attack more in a different sort of way like, sometimes before we were
>
> just like very direct but I feel like now after watching just like EPL games that
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> you saw how possession orientated those teams are and I feel like we are trying to
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> be a lot more possessive I guess you could say. And we were making more
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> smaller passes, one two's, give and go's and things like that…the [South
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> University] game we were really good like just possessing.

Individualized PA Review 2

On Tuesday February, 28, 2012, I conducted another individual review session

with Gail. She asked to view three specific games from the fall 2011 season which she

thought she didn't perform particularly well in. During two games she noted the three

central midfield players "were either too close or too far away from each other," a point made by Faith during her individual review. She reaffirmed this observation in her journal "I noticed that one of the main problems the midfield has is being too close together. Often we are right beside each other and that makes it difficult to get out of pressure." Toward the end of the season Gail told me she looked to see if the team was making progress in this area and believed we were.

While watching a third game she commented "I feel I can be so much more technical" and "I need to take more people on." She supported this sentiment by writing in her journal:

> One of the main things I noticed when watching film is the little things that I don't do as much as I should. One of the main things is taking on players. I rarely use my technical ability to attack the box and that is definitely something I need to start doing in the fall.

Gail told me she is the type of person who wants to see mistakes for herself. She explained "Seeing is believing. Cos sometimes you hear it obviously…sometimes you can hear it all you want but for it to fully register you need to see it." Even though Gail was still injured when she reviewed these games she saw them as valuable in her development. While watching the video she admitted she "sometimes remembers the games [and is] dreading if anything bad is about to happen," but then she often realized "the things [she] thought were so bad [aren't] as bad as [she] thought in the game."

At the end of the season she reflected on this experience and stated "it really showed me I didn't do as bad as I thought…like its simple fixes. Cos I know in a game

you get all wrapped up in it. The emotions are there…the competitiveness gets to you."

For Gail video was a second chance to see what she missed on the field. She explained:

> When you're playing the game you're wrapped up in it and you don't realize the
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> simple passes you could make, so pretty much the film showed me what I'm not
>
> seeing…you see the whole field on film. I just need to relax on the field.

She recognized she could "take that [experience] into next season, so whenever I

have a bad game I can learn to not just dwell on it, take things from it to improve on for

next game." She further explained in her journal:

> Watching the games that I didn't play well in helped me to see where I need to
>
> improve and also helped me realize that some things weren't as bad as I thought
>
> they were. This will help me in the fall when I think I'm doing poorly to not just
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> shut down during the game and just take a minute to refocus.

On Friday March 9, 2012, State University closed for spring break. The players

left with a training plan and were told they would have to take the beep test (also known

as multi-stage fitness test) upon their return. Gail believed the first training session back

after spring break was disappointing because of a lack of focus from the players. She said

"the intensity wasn't there right away, like it took a long time to build up the intensity in

the practices. You could tell people were a little less focused than we always are in

practice." The intensity soon returned to normal and she "didn't notice a lot of change in

the practice quality after that first session."

Gail saw football as a natural stress reliever and watching video was the closest

thing she had to playing. She added:

As much as it sucks to not be able to play, video will be…the best thing you have

because…it helps you, it definitely teaches you everything you need to improve

on and it shows you what you're doing right. So if you ever feel down on yourself

you can see what you've been doing right the whole time and you can use that,

keep that in your mind, until you are able to play again, and use what you see to

motivate you when you start playing again.

On the other hand she suggested video helped keep everyone on track. She

explained:

I know with classes being really stressful…I think video kinda refocuses you if

you aren't always thinking about soccer. Like obviously when you have classes,

exams, tests you're not always thinking about soccer so when we come for stuff

like this (video) it refocuses you and makes you think about it again.

Individualized PA Review 3

On Friday March, 30, 2012, at 12pm I conducted my third individual review

session with Gail. We reviewed a game from the fall 2011 season using Prozone

Matchviewer. In particular I showed her times when she needed to dribble more at

opponents and where to receive the ball as an attacking midfield player. Following the

video session she identified several areas to improve on and these stayed with her

throughout the season. She told me:

I know I thought about it a lot after watching it and I knew that when I was gonna

come back (from injury) I need to work on dribbling. I need to work on attacking.

I need to take more shots, but I guess it's like a road block right now being hurt.

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Individualized PA Review 4

On Monday April, 9, 2012, I reviewed the first 20 minutes of the second half of the North University game. I made two coaching points. First, I explained where she should transition to as an attacking central midfield player. Second, I showed her where to move to when she playing against two opponents in a two versus one situation.

Gail explained several benefits of receiving this and other individual review sessions. First, it allowed her "to pick out the things [she] needed to improve on and see the things [she did] right." Second, it allowed her to focus on the games she wanted to see, specifically the games she felt she didn't perform well in. Third, they were helping the team by highlighting to individual players where they needed to improve. She stated,

> I think the individual sessions that people get it makes them focus a lot more on what they need to improve on and when you try to improve on yourself you're helping your team improve too because you're becoming a better player.

Interestingly, she believed those who received individualized PA reviews had an indirect influence on those who didn't receive them. She stated,

> I think that the people that weren't getting [individual] video [sessions] just fed off of the people that were getting it. They saw that they were trying to improve so they did the same, like trying to do the same thing…just like seeing everyone on the field like working hard in practice…you could just tell that when one person was raising their quality of play everyone was trying to match, like meet that too.

End of Season

On Friday April 20, 2012, Gail reflected on her experiences of playing football and receiving video-based feedback. She described her overall experience with using video throughout the season as positive and it helped her realize how much she enjoyed playing the game. She recalled how video helped her look for and recognize the coaching points she and the team were working on in practice and games. She explained,

I only saw three of our games in the spring. When we were talking about us three midfielders being so close during the games I definitely looked to see if that was still happening and that type of thing and like getting in the seams. And then practice seeing if people were getting behind the opposing midfielder type thing and…as spring went on I guess we were improving a lot. I saw like even in practice midfielders were starting to make the effort to get in the seam and like make those off the ball runs some more. It just seemed like the quality was going up the whole time. You could tell people were like taking what they were watching in their film and stuff and trying to improve on it for sure.

Gail spoke openly about the importance of watching video while injured. She said,

It's motivating you in a way [when you're] injured…I could have just easily not had to watch any film, like you could have had the mentality 'she's not gonna be able to do anything about it so why show her it?' But it was definitely helpful like if I can't be actually doing it on the field at least I can be like processing it in my mind to like always be thinking about it so when I do actually get to play I don't really have an excuse to being behind cos I've been watching it on film.

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Toward the end of the season Gail realized she was never going to play again in the spring. The video sessions allowed her to "watch and see everything and [feel] like [she] was still part of what was happening." She benefited from seeing what the team needed to work on and what improvements were being made, especially the midfield. While watching practice she would identify coaching points being executed by her teammates. She explained,

> I would be watching the midfield and I'd be like, if let's say Faith would do a really good turn or would be in a really good position I'd be like 'That's what Andy told me earlier I needed to work on and I saw that on my film.'

Although Gail felt more focused and confident heading into the summer break she still had concerns. She told me "What's making me nervous, is the spring is the perfect time to start improving on all that stuff before pre-season…I know a lot of the stuff I need to work on I'll have to do by myself this summer."

Gail identified several benefits of using video in training and during preparation for games. First, it allowed her to fully understand the mistakes she was making. Although she acknowledged "mistakes do happen in games," she was conscious of trying to make as few as possible, and she saw video as a useful way to settle any doubts she had about mistakes. She explained. "It definitely shows you, like maybe you've been questioning what's not going right in practices but if you see it then you can finally process what's going right, not going right and definitely try to fix it."

Gail explained a single event such as "the other team scoring a goal or a play [breaking] down" caused her to panic. This led her to make "rash decisions and wanna

rush things more." Ultimately she would make a mistake which stayed in her head. She told me,

> I feel like if I did something wrong, if not even that bad and then I keep that
> attitude sometimes it keeps going and then mistakes that I shouldn't have made,
> I'll get down on myself and I'll start making more…so I like to see on film what
> I'm doing.

Gail acknowledged she is "one of those people who gets down on themselves," and finds it hard "to get out of it in a game." She explained "at the beginning you're nervous, you're getting into the game but as the game keeps going on and you keep making mistakes it's hard to snap out of it…and it doesn't go away if things keep going bad."

Gail recalled a game from the fall 2011 season when I asked her "to start dribbling at people and just start taking people on." She explained this coaching point made her nervous because she felt she hadn't been doing it enough. During the game she would panic for no reason "and would want to look quickly for the pass." She explained,

> I [didn't] want to take the person on right away. I think it was just nerves. I was
> doubting myself a little bit. I was just so used to just playing it off to people,
> making the pass first and not be like selfish with the ball.

This reflection made her realize she dwelled on mistakes too much during games "and definitely [needed] to work on not letting herself get so negative so quickly. Like if something goes wrong I need to learn how to like snap out of it."

When asked if watching mistakes motivated her to change her behavior she stated,

I think everyone is different about how they go about changing things. I know for me personally after I saw [mistakes] I knew I wanted to fix it…because I knew I could do better, and I knew I had more potential that I can obviously play better. And it's just frustrating sometimes to see…the frustration kinda turns into motivation cos it makes you wanna change it.

Second, she explained watching the good things she did on the field acted like a "booster" because she was able see "some cool quality stuff," she did. These positive clips allowed her to see "the things [she is] good at and how she needs to do more of them." This had a motivating effect on her. She told me "If anything it made me wanna get out there and play more. Seeing the games that I thought I did good in made me wanna play really badly. Cos I see I have the ability to do stuff."

Third, Gail identified the benefit of practicing soon after watching video analysis. She stated this was especially helpful when working on set plays and when working on attacking. She stated:

When we would watch film and go out and practice right after, I think that helped especially when we worked on set pieces…but definitely stuff like players and certain ways they would attack that we would go over in that practice stayed with you for the game.

Gail couldn't identify any problems with receiving video-based feedback sessions during training and competition.

Irene

The fifth case study focused on Irene, who entered the spring 2012 semester as an academic senior with one year of athletic eligibility remaining. The case report begins by

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exploring her football career prior to attending State University and any experience she had with receiving PA as an athlete. Next, the fall 2011 season is discussed with reference to her experiences while receiving and responding to video-based feedback session while representing State University. Following this the spring 2012 football season is explored in detail and includes her experiences of receiving and responding to video-based feedback sessions. It is organized and presented chronologically and is based on her receiving the following video-based feedback sessions: Individualized PA review 1, team review 1 and 2, individualized PA review 2, individualized review 3, and individualized review 4. Lastly, an end of season review with Irene is discussed.

Prior to Attending State University

Irene was born and raised in the south region of the US. Growing up she played competitive high school and club football. She was selected three times as All-Conference and twice as an All-District player for her high school. During her sophomore year she scored two goals and assisted on eight others and as a junior she scored six goals and assisted on five others.

In 2005 she was selected to her State ODP team and the USYSA region three team, and was rewarded with a place in the ODP national identification (ID) camp. During her club football career she helped her team win eight-straight State titles, and in 2009 they won the USYSA region three championship; earning a coveted spot in the USYSA National Championship tournament.

Irene had no experience with PA in football prior to entering college but had received some video-based feedback in basketball.

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Fall 2011 Season

Irene admitted she didn't pay much attention to the opponents during the opposition analysis video sessions during the fall 2011 season. Instead, she preferred to focus on her team. She stated:

I don't really like watching the other team. I like how ya'll tell us this outside back is not good, so and so's not good. But I don't really like watching cos I feel like, not that it really psyches me out but it just puts too much in my head. I'd rather focus on what we can do not what they're gonna do.

This refusal to acknowledge the other team extended to the warm up phase of competition; something she thinks stemmed from her club football days. She recalled:

I don't even like to look at them like while they're warming up. I think that just comes from club because in club we always would be like 'Don't look at them.' That way you're not gonna be intimidated, you're focused on each other because I mean you've gotta play together.

I asked her, "So what if we showed the other team doing bad things all the time, would that be better for you?" She responded, "No. I would be thinking they just weren't good at all. That probably wouldn't be good either. Cos I would probably think that they were horrible and I then I would go into [the game] over confident."

By the end of the spring season Irene confirmed this feeling. She entered into a journal:

I tend to lose focus when we start talking about how the opponent plays because in my opinion it doesn't really help much. Because we cannot change anything

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about our opponents play or what they do but us can change and fix anything about ourselves so that's what I prefer to focus on.

On the other hand the motivational videos were more appealing. She told me "[I] love them. I feel like anything even if it's not soccer, any sport when I see that kind of stuff it's just inspirational. I enjoy that." They reminded her of March madness during basketball season where "they have a video, a commercial [with] all the people that have won the championship…and all these really awesome plays and it gets me ready to play."

Irene ended the fall 2011 football season as an academic junior with one year of athletic eligibility remaining. As a freshman in 2009 she started all 19 of the games she played in scoring one goal and assisted on four others. The next year she started 19 of the teams 20 games scoring two goals and assisted on three goals, tied for third on the team with seven points for the second successive season. In 2011 she started in 18 of the team's 19 games scoring five goals and assisted on two taking her points tally for the season to 12; the second highest on the team.

Irene said she didn't have any high expectations of using video, but by the end of the season was hoping to have put into practice some of the things she had learned. When asked what motivated her to play she told me "I still love soccer…I feel like I probably always will, but, I like so many other sports too that I don't know if I will always be like 'Yay soccer,' all the time."

Spring 2012 Season

On Tuesday February 7, 2012 Irene was in the State University locker room when the team was shown a recording of an EPL game between Manchester City and Tottenham. Also, the team watched a recording of Manchester United and Tottenham

Hotspur on March 20, 2012. The intention was to show examples of elite level football, and to have each player observe a professional player who played their position on the field. Irene recognized the benefit these games had on her and the team. She told me "seeing how simple they play, you don't have to do amazing things to be successful." Additionally she noticed "They play really really fast. They always keep making the run, a lotta their goals came off [players] just going instead of stopping." At the end of the spring season Irene told me she tried to incorporate this into her own game because she "caught [her]self sometimes like just stopping and [thinking] 'Oh, [Hailey's] super-fast she's gonna score, she's so good' but like she might miss and if you're there you can help."

Individualized PA Review 1

On February 23, 2012 I sat down with Irene for our first individual review session at 4:15pm. I reviewed a game from the fall 2011 season. It gave me a chance to review her play as a center forward. I made two coaching points. My first point was to show her when she should spin in behind the opponent's defense. My second coaching point stated the need for her to stay higher up the field so she could check short for the ball and then either play it to a supporting midfield player or switch it to the other side of the field. Irene explained the first point was harder to implement than the second one. She explained, "The transition, the whole brain thing of doing the little spinning in behind and giving types of movement isn't necessary simple." She further stated,

> If it's something new that's like totally out of my comfort zone then yeah I'm like 'I don't know what to do.' I don't necessarily want to give up but it's almost like frustrating cos it's like, that's completely out of my comfort zone and like when

you've been playing soccer your whole life and then your asked to do something

you've never ever done it's hard to do it.

So spinning in behind was new for Irene. The times she did try left her with mixed

feelings. She stated,

If it worked it obviously felt good but if it didn't work or if I didn't get the ball or

nothing happened or if I made space for somebody and it didn't work I don't

know… I felt frustrated.

Irene admitted she didn't quite at first put into practice spinning in behind the

opponent's defensive line. At first it was "wait, I play the ball, wait two seconds and be

like 'okay spin now.'" Against South University Irene was slow to transition when the

ball was away from her. I observed from the game:

Today, Irene checked short for the ball most of the time. After she passed it to a

teammate she would stand or be slow to get into the box on a sprint. However,

there were a couple of times when a midfielder would receive the ball with no

pressure and she was very quick to spin into a channel and in fact we scored our

second goal from her quick movement. It seems she only spins when it's clear a

midfield player will receive it and have time on the ball (Field note: February 25,

2012).

Over the course of the spring season Irene admitted she focused more on making

sure she kept running after she passed the ball. She stated she didn't notice she wasn't

moving after she played the ball until it was pointed out on video.

Irene saw the benefit of spinning in behind and acknowledged "if I continue to do it it'll become like second nature and not have to think about it while I'm doing it." However, there were times when she doubted her ability to do so. She stated:

At times I don't think I'm fast enough for some of those runs. I feel like there were times when I did make the run but I couldn't get to the ball. Sometimes their center backs are really fast. I mean I'm still gonna try to do it anyway but sometimes I feel like that's not enough to get to the ball so once it's not successful I'm not gonna do it anymore.

The second coaching point of staying higher up the field was simple to do. However, her previous experiences playing football meant it was something she wasn't in the habit of doing on a regular basis. As a club player Irene played mainly defensive or attacking midfield positions. These positions required her to check and show for the ball instead of moving higher up the field. Therefore while playing as a striker she would "think automatically show to them rather than…stay high." According to Irene staying higher up the field was easier to understand and carry out than spinning behind the opponent's defense. She stated:

It was simple. It's almost like when you're little and you're told not to bunch up…knowing where you're supposed to be is simple. I felt that part is simple. Knowing I need to be high between two center backs. I feel like that's easily fixed.

By the end of the season Irene started to see the value in using video analysis in her training. In particular she noted the effect it had on her effort to apply the coaching

points seen on video to her training. This included staying higher up the field between the two opposing central defenders. She stated in a journal entry:

> I used to hate watching film because I felt it was a waste of time. But throughout this process I have grown to like it because I began to see improvements in my game. During practices I noticed myself making an effort to apply the things I learned from watching film such as staying as high up the field as possible between the two centre backs. During this process I feel like doing that started to become second nature.

Team Review 1 and 2

On Wednesday February 29, 2012, I conducted a team review session of the game against South University. Additionally, on Thursday March, 29, 2012, I conducted a team review session of the game against North University in the State University football locker room. At the end of the season Irene told me she preferred the individualized PA reviews and paid little attention during the team reviews. She told me:

> When we started doing this individually I felt like it helped. Whenever we're with the team I feel like I don't take much out of it. I take more out of it when it's individual like watching film and hearing feedback and stuff of what I was doing. Like I learn more that way…there's no distractions and stuff isn't missed cos when I'm with all of the team like you might just be focused on defense or something. Like I don't feel like I'm gonna be learning so I'm just gonna sit there and probably zone out, like 'hey they're not talking about me yet so'.

Irene confirmed this feeling in a journal entry. She wrote:

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I enjoy these one-on-one sessions a lot more than watching film as a team. I feel

as though I get a lot more out of it that way. I like the way that Prozone can break

the film down making it easier for me to see what I need to improve on. I seem to

be more focused and take more out of a one-on-one session.

Individualized PA Review 2

On Thursday March, 1, 2012 at 4pm I conducted another individual session with

Irene. It gave me a chance to reinforce previous coaching points of staying higher

between the opponent's two central defenders and when to make a run after she played a

pass. During the session Irene stated "I don't think about the sprint afterward, it's not a

habit yet," and believed it wasn't natural for her to run after she passed the ball unless she

saw what her teammate was going to do with the ball. She also admitted to being a little

scared of making a run and making mistakes and would only run if she knew she was

99% sure of receiving the ball.

Irene played very well against North University. Her movement was more

evident, especially in the attacking third of the field:

Irene stayed a lot higher today between the two opposing central defenders. She

also made some good runs in behind but this was only done when we were close

to their goal or if we had somebody dribbling the ball forward and there was no

opponent nearby to close her down (Field note: February, 25, 2012).

On Friday March 9, 2012, State University closed for spring break. The players

left with a training plan and were told they would have to take the beep test (also known

as multi-stage fitness test and yo-yo endurance test) upon their return. Overall, Irene felt

the break didn't cause her to lose focus. Instead she "wasn't completely focused the

whole semester." Instead she was "at the same level the whole spring…I had a lot going on." She added her academic workload and trying to get into medical school added stress to her life which affected her focus negatively.

Individualized PA Review 3

On Wednesday March, 28, 2012, at 2pm I conducted my third individual review session with Irene. I reviewed the first 20 minutes of the game against North University and discussed two coaching points. First, I told her she needed to take less touches when receiving the ball which would allow her play it back to a supporting midfield player or switch it from one side to the other. Before the game against East University she told me:

> I feel it's good at times but not as good as it should be. I just don't always do it. In those games I just feel like my touch is horrible so I need like five touches to get the ball there. It might not look like it's a bad touch but you know when you take a touch when it's underneath you so you feel like you need another touch.

Irene found it difficult at times to keep possession of the ball against East University. I observed from the game:

> Tonight Irene worked very hard off the ball closing down their defenders when they had the ball. When she received passes from her teammates however, she would often take a poor first touch and this allowed East midfielders to double on her and win the ball. The times he was effective was when she played one touch passes or quickly played it with a second touch. More than three touches usually meant she lost the ball. The East University central defenders did a nice job of pressuring her from behind (Field note: April, 4, 2012).

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My second point reiterated a previous coaching point of asking her to sprint after she passed the ball; so she can start getting into the habit of moving quickly after she passed the ball. She told me she always thought she "had pretty good movement." Upon reflection she realized "I don't cos I stand around a lot after I play the ball, which I never really noticed to be honest."

Irene commented on this in a journal entry:

One thing that was pointed out during this process was my lack of movement at times after I play the ball. So I have been making an effort in practice and our spring games to fix this because I know that will help my game. I hope that by fall I don't even have to think about it but that it becomes second nature, making me harder to defend.

Irene became more mobile against East University when we were entering the attacking third of the field. She made some good runs off the ball and found space in between defenders. I observed:

Around the middle third of the field Irene still had trouble sprinting into the box when the ball was played wide or beyond her. However, when she was further up the field she made some very dynamic runs across the defenders or in the spaces between the defenders. This put her in some good positions to receive through balls (Field note: April, 4, 2012).

Individualized PA Review 4

On Wednesday April, 11, 2012, I reviewed the first half of the East University game with Irene. It gave me an opportunity to discuss two coaching points. First, I showed her times during the game when she could have used fewer touches to get the ball

to Faith. Second, I showed her moments in the game when she could have moved off the ball to support other players with the ball. At this time she told me "I feel like I'm doing better about moving after I play the ball…that is what I've been trying to focus on."

Irene played exceptionally well against Locale University. Her energy levels seemed to be much higher than in the previous games and she found herself in some good positions around their 18 yard box. I observed,

> This evening Irene was always on the move. She didn't hesitate after passing the ball. Quite often she spun in behind after laying the ball off and got into the box on numerous occasions. Now we need better deliveries for her to get on the end of (Field note: April, 13, 2012).

End of Season

On May 4, 2012, Irene reflected on her experiences of playing football and receiving video-based feedback. She told me although she "thought about [video] throughout the week, she liked to "think about it right before practice or game." She stated:

> Before we warm up as a team I like to just sit there and think about what I need to do and relax and just chill for a minute. Whenever we were doing this I would think about staying high and like I need to spin… and tell myself that I'm gonna have a good game…I just like the feeling of relaxing before I play a game.

When I asked her what is it like watching video she told me, "You realize maybe either that you're better than you are or not as good as you thought you were. You're either going to think 'Oh, I'm actually better than I thought'," or "I'm not as good as I thought." She believed this was due to mistakes staying in her head longer.

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On the other hand she said sometimes, "You think you're doing something right and then when you watch film you really know that you're not doing it." She attributed this to possible self-denial. She stated. "I feel like it's always like that, cos you don't wanna think that you're doing something wrong but then whenever someone shows you, you're like 'Oh'…No one wants to think they're doing it wrong." Therefore, watching video was a useful way to check what really happened because "there's times when I think I'm doing something and I'm watching [video] and I'm like 'Oh okay I'm not really doing that." She supported this thought in a journal entry by writing "What I see on film is not always what I think happened during the game. So it's good to go back and look."

Irene was delighted to see she wasn't too bad at possessing the ball. She stated. "I didn't realize how good I was at keeping the ball. Like I didn't think it was as good until watching [video]." Irene attributed this to a habit of "keeping track of how many times [she gave] the ball away," and this seemed to stick in her mind throughout a game. When, in fact it "might have been only two or three times" she lost possession.

Irene wished the team had started receiving video-based feedback during her freshman year. She noted:

I feel like as a team we're getting a lot better than we were in the fall, like we are playing quicker, playing one an' two touch and like actually doing the things ya'll tell us instead of like doing our own thing.

Irene identified several benefits of using video. First, Irene stated she enjoyed watching the video clips of herself playing well, but "for the most part…the things you are doing right you know for sure that you're doing them right."

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Second, Irene preferred "Being able to see what [she's] doing wrong," so she could learn "how to fix" them. This she suggested would go a long way to helping the team achieve their long term goal of qualifying for the conference tournament. In addition, fixing mistakes meant she wouldn't be an annoyance to anyone. Irene admitted she would get annoyed "if somebody's doing something wrong...So I don't want me to be an annoyance to other people."

Third, Irene preferred to see mistakes on video and considered it much more effective than viewing a live demonstration. She declared:

I think watching yourself on film is better than someone demonstrating it. I'm more likely to remember....Like you could probably do what it is you're asking but I think it's better though to see the mistake first so you could be like 'don't do what I just did.'

Interestingly, Irene had learned the previous summer she was a "mixture of every type of learning style." She told me she is "partially auditory, partially kinaesthetic, and like partially everything." However, she believed she learned more from playing a game. She said "If something happens in the game I feel like I will remember it better than anything else, rather than in practice where we do things repetitively. But in a game if something happens I'm gonna remember."

Fourth, Irene commented on the positive effects of using video to record training sessions. She stated "I feel like you do try harder if you know it's being filmed, you're gonna try harder. That's the same thing when more people come to your game, you're gonna want to try harder cos you have more fans."

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Irene believed there weren't any weaknesses to watching video. Everything seemed to be helpful.

Within-Case Analysis

This section includes the within-case analyses for the five female college football players. The analysis was organized according to the two research questions. First was an analysis of how the players described and explained the influence the video-based feedback sessions had on their athletic learning, second was an analysis of the factors, other than video, which negatively influenced their implementation of coaching points they received during video-based feedback sessions.

Allison

In regard to Allison describing and explaining the influence video-based feedback sessions had on her athletic learning there were eight reoccurring themes. These were: (a) preparation (b) understanding the roles and responsibilities of her and her teammates playing positions (c) video absolves players from blame (d) platform for her and the team to build on (e) negative impact on player confidence (f) provided an accurate account of her performance to reflect on (g) video helped her remember and implement coaching points during training and competition (h) motivation.

Allison believed video-based feedback sessions helped her prepare for games. She believed this helped her reduce the chances of making mistakes by having an idea of the opponent's game plan, knowing what she had to communicate to her defenders in a game and by increasing her arousal level and motivation.

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Allison recalled oppositional analysis videos during the fall 2011 season helped with her preparation. Since she was a goalkeeper Allison focused on the central areas of the field and the opponent's forwards and central midfield players since those players were likely to cause problems for her. This prepared her mentally for competition by reducing her nerves, relaxing her and knowing what the opponent's strengths are and how they were likely to execute their game plan.

Allison stated receiving video-based feedback sessions helped her understand the roles and responsibilities of her position and those of her teammates. Allison noted watching professional football players during the EPL review sessions provided her and her teammates with ideas on how to improve as a team. In particular she believed it informed every one of what their roles and responsibilities are within the team.

Additionally, the team review session helped her learn a lot about the roles and responsibilities of her defenders. She told me these sessions helped her visualize where her teammates should be on the field and this helped her know what to say in the game. Allison explained how this helped her teammates. She said, "If we got scored on because someone let their mark go or someone wasn't goal side or they didn't step at the right time, I can see that and so I can help prevent that from happening next time."

By understanding what her teammate's roles and responsibilities were on the field Allison explained she was able to communicate better. In particular they helped her learn what to say and to whom. During the game against East University I had noted Allison had been very loud on the field, providing the wide defenders with excellent instruction.

Allison stressed a good time to watch video was the day following a poor performance. This allowed her to get over the disappointment and move on. Additionally,

it often relieved her of blame for a mistake. By viewing an accurate account of a goal she conceded it let her fully understand if she was at fault and if not this served to protect her confidence.

Allison stated video reminded everyone what they were doing well and provided a platform to improve as a team. Allison believed watching a team review was more beneficial than the EPL review sessions. She stated it was more realistic and helped everyone know what they did well, what they didn't do well, and what they needed to work on. This was especially true for herself because she could identify what she should have done differently and take that into practice and work on it.

Allison described and explained one possible weaknesses of receiving video-based feedback. She stated a player's confidence could be affected if negative clips were repeatedly shown.

Allison stated video allowed her to see an accurate account of what really happened in a game. This allowed her to see any mistakes she was making and gave her a chance to re-live the moment and understand what needed to be fixed. Allison explained she only fully understood what happened by seeing it on video as opposed to being told verbally what happened. Allison provided two examples. First, with regard to her kicking technique she stated "[It] looked really weird [on video] because I didn't realize how far I swing around the ball. I never really realized it until I saw it." Second, with regard to retreating into her goal when opponents had breakaways and were dribbling toward her she declared she didn't realize she was doing it until she saw it on video. She further added these moments stayed in her mind during the one week following a video viewing,

and this occurred mostly in training where she either fixed the mistake or didn't. Viewing the mistakes on video motivated her to change what she originally did.

Allison believed receiving video-based feedback sessions helped her remember and implement coaching points during training and competition in several ways. First, Allison felt watching her kicking technique on video helped her enormously. In particular she became "more aware of it" and during practice she made a conscious effort to "try to not get [her] foot so far ahead of the ball." During competition Allison stated she would always start off thinking about the coaching points she viewed on video.

Also, by practicing her kicking in training she thought about and reflected more on her technique and made adjustments when necessary. This helped her identify why her kicking was sometimes poor. She explained "My natural line up is so far back [but] now I can remember and think about it and come up closer," and "when I start really far back my strides get big [and] my last stride ends over the ball… and my swing isn't going all the way through…my legs are so stretched out."

Furthermore, Allison explained she used self-talk to remember a coaching point she had received during a video-based feedback session. I had explained during a review session she had to stay higher in her box when the ball was in the middle third of the field. Allison stated this was difficult but she kept reminding herself during games not to retreat into her six yard box. She explained she did this against Locale University to remind herself not to retreat back into her goal area.

With regard to another coaching point Allison explained how she improved during one-on-one breakaways. In particular I showed her on video why she needed to stop retreating into her goal when opponents had breakaways and were dribbling toward

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her. Allison explained this changed how she approached one-on-one breakaways and "threw her off [her] normal routine." However, before the end of the season she reflected and noticed she would start to go backwards when the opponents came toward her goal, only moving forward when they got close. This helped her change her behavior during the game against Locale University. In support, I observed during the game against Locale University Allison stayed much higher in her 18 yard box.

Allison stated video motivated her because it allowed her to see past successes. This increased her confidence by showing her she was capable of producing good performances and this reminded her she is capable of repeating them in competition. In addition, Allison explained the motivational videos shown during the fall 2011 season prepared her mentally by getting her excited to play and this motivated her to repeat the positive performances she viewed on video.

In regard to factors, other than video, which had a negative influence on the implementation of coaching points viewed during video-based feedback sessions there were three reoccurring themes. These were: (a) previous injury (b) impatience (c) loss of focus.

At the start of the spring Allison explained an old injury meant her kicking leg would become tired from repeatedly kicking the ball. Ultimately her kicks didn't go as far with the old technique and she stated she became nervous when the opponents would win the initial challenge from her goal kicks. This is supported by my observation which noted her goal kicks usually landed short in the midfield area of the field.

Allison stated she returned to her original technique because she feared making mistakes. However, by the end of the season her kicking had improved. During the game

against East University Allison's kicking was very good. An observation I made revealed Allison had to take a lot of goal kicks and seemed to clear the ball much further.

Allison explained her impatience meant she failed to get set during one-on-one breakaways. This, she believed was the reason she conceded some goals. This did occur against South University. I observed this to be true against South University where Allison came out too fast and was caught with an early shot into the bottom corner.

Although Allison correctly identified she needed to be more careful when approaching opponents who were dribbling toward her she still had a habit of being impatient and came out too fast. This slowed her reaction time down on any shot or dribble she faced. Unfortunately, during the rest of the season she didn't improve on this aspect of her game. Against North University I observed, "Allison made it easier for their striker to score by dashing out of her goal and not slowing down (Field note: February 25, 2012)." Similarly against East University I noticed "on two occasions, including East's first goal she failed to get set and keep her feet still. She came flying out toward the opponent and this slowed her reactions time down and prevented her from making a save." (Field note: April, 4, 2012).

Allison believed spring break may have affected the mentality of the players upon their return. She stated it appeared some players were still in "spring break mode," and this along with stress from receiving more academic work from professors may have affected their performances in training and in competition.

Caroline

In regard to Caroline describing and explaining the influence video-based feedback sessions had on her athletic learning there were seven reoccurring themes.

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These were: (a) preparation (b) understanding the roles and responsibilities of her and her teammates playing positions (c) negative impact of receiving video-based feedback (d) provided an accurate account of her performance to reflect on (e) video helped her remember and implement coaching points during training and competition (f) motivation (g) individualized PA reviews were more conducive to learning than team reviews.

Caroline believed video-based feedback sessions helped her prepare for competition by analyzing the opponents. She stated the oppositional analysis reviews she received during her high school career were helpful because they informed her and her teammates who they could take advantage of offensively and who to be aware of defensively.

The opposition analysis reviews she received during the fall 2011 season helped her in two similar ways. First, since she was a central defender she was able to focus on the central areas of the field to see how she would have to adjust in the game. She especially watched the opponent's center forwards to see how they played and how they were likely to cause her problems.

Second, she was able to communicate with Daisy and discuss how they would play together as a new central defensive partnership. Caroline told me they would discuss how they would work together against specific opponents by watching and understanding their opponents playing tendencies on video.

Caroline stated receiving video-based feedback sessions helped her understand the roles and responsibilities of her position on the field and those of her teammates. Caroline noted watching the EPL review sessions allowed her to compare the positioning of professional football players with the positioning of the State University football

players. She believed the State University team could spread out more during games and still be efficient although she realized the enormous physical capabilities the players must have to do so.

Likewise, Caroline used team review sessions to increase her understanding of her teammates' roles and responsibilities on the field. Although she found it difficult to concentrate during these review sessions she did acknowledge she tried to take everything on board since she felt it could help her organize her teammates on the field in future games.

Caroline stated watching mistakes on video can have a negative effect on players if it happens all the time.

Caroline stated video allowed her to see an accurate account of what really happened in a game and she felt on several occasions she did more in games than she actually did. She suggested this could be because "it all blends together when you're on the field and you only remember the really really good stuff or the really really bad stuff." Overall, however, she felt the bad moments in a game stick in the mind more than the good moments.

When reflecting on the East University game she believed the result of the game (a tie) clouded her judgement and affected her ability to review her personal performance. Caroline added at the end of the season she felt watching most games during the spring revealed her performances to be different to what she initially thought.

Caroline believed receiving video-based feedback sessions helped her remember and implement coaching points during training and competition. In particular she told me video helped with her decision making on the field by encouraging her to reflect on her

performances. This reflection seemed to help her use verbal reminders on the field and identify visual cues on the field. In addition, individualized PA reviews were especially helpful when it came to remembering and implementing coaching points.

At the end of the spring Caroline suggested video had helped her because it encouraged her to reflect and evaluate the decisions she made on the field, something she called an "afterthought." She explained, "It makes me think more….it makes me re-think a decision, if I should change my mind and do something else." Caroline informed me this occurred following good and bad decisions.

As a result of these evaluations she believed her decision making improved over the course of the spring season. This was certainly true with regards to her first coaching point of when to pass the ball forward, across the field or back to a supporting teammate. She recalled one instance from the game against North University when she recognized a player in open space and played a successful forward pass. This led to a State goal which was eventually called back for off-side. She recalled seeing opponents at the center circle and Faith in open space to pass to.

My observations during the spring season supported her belief she improved her decision making over time. The team had performed extremely well against South University, winning the game by five goals to one. Caroline made excellent decisions in the game, especially dribbling the ball into open space and playing some good passes into the feet of teammates. I observed from the game Caroline played well; choosing to dribble and pass at the correct times.

Additionally, Caroline's performance against North University was also very good. Although we lost by two goals to one she was very dominant in her defending and

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especially effective in attack. During the game she made some excellent passes into the forward players and switched it at the correct time to central midfield players.

Caroline stated video reviews helped with her decision making of when to make a forward run to support a wide midfield player. She remembered viewing video with me and being told when to continue a run beyond a wide player and when to hold back and support from underneath. The next week in training, Caroline remembered this coaching point and used self-talk to remind herself what to do. When asked why she remembered it she reaffirmed her belief that one-on-one sessions were more conducive to recalling and applying coaching points. She told me "because we had talked about it individually" she paid more attention to my words which ended up sticking with her; more so than team review sessions.

Similarly, Caroline believed watching video helped her with her decision of when to overlap a wide midfield player. She told me video helped her understand the visual cues of when to make the run forward. She explained she focused mainly on the body position of our wide midfielder to help her. She told me if the outside midfielder players received the ball with their back to opponents then she would stay behind. However, if they turned she would make a run beyond them.

Caroline told me she evaluated this decision during games and would use them to help her make better decisions in future games. She admitted being concerned about where the blame would lie if a mistake was made. She explained, "Well. If I do make the run and it was a good one and then I get a bad ball then I'm like 'Well at least I did my job and I did the right thing.'"

Caroline commented she thought about this coaching point more than others. She attributed this to three factors. First, she is able to think more and make better informed decisions without the ball at her feet because she is thinking more." Second, she told me making runs forward were fun and enjoyable and third, she stated "the consequences of losing the ball further up the field meant it was less risky for her to make runs.

Caroline stated watching video motivated her in several ways. First, she stated she enjoyed watching herself do good things on video as this made her feel good and reaffirmed what she had been working on. However, she stated "viewing games to see what went wrong was crucial as it [allowed her] to see what went wrong and be able to fix it." This was important because "if you never see what you're doing wrong then [you're] just gonna keep getting that wrong every time."

Second, watching the motivational videos during the fall 2011 season motivated her to play because they were designed just for her and her teammates which felt more personal.

Third, Caroline explained having training sessions recorded motivated her to put more effort in training. She explained seeing the video recorder set up meant she knew the coaches would, at some point, review the training session and see her performance. This kept her and the rest of the team honest in their effort.

Caroline believed receiving individualized PA reviews were more conducive to learning than team reviews. She explained this was due to two reasons. First, they helped her remember more information because they focused only on her. She told me "When you're watching individually I think I'm so gonna automatically remember it." She

attributed this to her desire to take responsibility for her actions and to fulfil her role as captain.

Second, she admitted she often paid little or no attention during team reviews. This was because I often talked about other players. She told me, "When we watch the film as a team and you say one specific thing to one person, then I don't remember anything you say or what anyone else [says]." She explained she only paid attention to me in team reviews if what I was saying was likely to affect her in competition. She recalled hearing about the defense being too spread out so she listened to that particular coaching point. However, other information slipped by her since it didn't pertain to her performance.

As a result of receiving individualized PA review sessions Caroline believed by the end of the season she watched video with an inquisitive mind. She stated she would think about could have happened to make the performance better.

In regard to factors, other than video, which had a negative influence on the implementation of coaching points viewed during video-based feedback sessions there were four reoccurring themes. These were: (a) training (b) opponents (c) teammates (d) loss of focus.

Caroline explained how important it was for training sessions to follow video-based feedback sessions, and for these to be related. She stated this was crucial for learning to occur because she thought about the coaching points a lot more when training sessions quickly followed video reviews. She stated this was especially true of training sessions which were game related or directional with goals, instead of possession orientated games or activities.

Caroline recalled a training session I delivered on Friday March 30, 2012 the day following a team review session. During the review I showed the team how North University defenders had successfully dribbled and passed the ball out of their defensive third and into the middle and attacking thirds of the field. Caroline noted there were several issues with my training session. First, she recalled several key players missing due to injury which restricted the session to a small sided game and this she believed affected her understanding of the coaching point. Also, she noted "I think it was a good idea but I think it just wasn't a good practice that day because it [was] Friday and it was raining and no one was like even trying almost."

Caroline stated the opponents affected how well she implemented coaching points viewed on video. The defensive ability and tactics adopted by opponents affected how well she dribbled and passed the ball out of her defensive third and into the middle and attacking thirds of the field. The defensive approach by Locale University put Caroline in a position where if she lost possession of the ball there would be major repercussions on her and the team. This affected her willingness to try the coaching point. The higher defensive line by Locale University made it riskier for her to dribble and pass out of the defensive third and into the other two thirds of the field.

Also, while playing against East University she faced a team who defended differently to what she (and the State University team) had prepared for. This confused her and left her with unanswered questions on the field. This was enough for her to stop running forward when Jacky dribbled past the half way line and she would drop into the back line to make three defenders. The tactics used by East University had caused clear uncertainty in Caroline.

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The perceived ability of opponents affected how Caroline implemented coaching points viewed on video. In particular Caroline believed the ability of opponents affected her concentration.

When State played stronger teams Caroline was reluctant to even dribble with the ball. She admitted to being nervous and aware of the danger of making mistakes and would look to make more runs without the ball than with it. Caroline stated when she played against North University she was more cautious. She knew there would be bigger consequences if she made a mistake. This fear of making mistakes affected her negatively and led to negative self-talk during that game.

In the same sense Caroline took fewer risks against East University. She did manage to dribble the ball a few times on the right side of the field but this time she made quicker decisions. An observation form the game stated: "Caroline connected a lot of early passes tonight with Olivia, Faith and Irene. She kept her head up quite well and looked for the easy option when she had it." (Field note: April, 4, 2012).

Caroline believed the actions of her teammates affected how well she implemented the coaching points she viewed on video. During a team review session I showed her how and when to pass the ball forward to our attacking players. Caroline couldn't recall a time where she was able to connect a pass with a teammate in this space against East and Locale University. She believed this was a spacing issue with the midfield and forward players. She believed the forwards were too static and this prevented space opening up in the seam for forward passes to be made.

Having recognized the problem Caroline confronted the attacking players during half-time against Locale University. She recalled telling Irene in the locker room to solve the problem.

Caroline believed life as a student-athlete was an issue for her and her teammates. Especially when it came to staying focused on football and ultimately learning from video. She stated having a heavy academic schedule and frequent tests left her and her teammates mentally tired. She believed by the time practice rolled around she was too tired to focus and process the coaching points and would revert to competing as hard as she could.

Furthermore, a combination of other things may have affected her and her teammates' focus. She believed a combination of taking a break for nine days, a change in the intensity of team training, and the looming summer break affected the team's focus in a negative way. She added a lack of fitness training after spring break also affected the mentality and fitness of the players. She also realized summer was looming and it became a countdown to going home for most of the players.

Faith

In regard to Faith describing and explaining the influence video-based feedback sessions had on her athletic learning there were eleven reoccurring themes. These were: (a) preparation (b) video can help achieve personal and team goals (c) identify cause of mistakes through reflection (d) video caused her to overthink during training and competition (e) video clips should be mainly positive (f) provided an accurate account of her performance to reflect on (g) motivation (h) video helped her remember and implement coaching points during training and competition (i) video helped her tactical

understanding of the game (j) video negatively impacted her ability to attend to and remember information (k) video helped her identify team areas for improvement.

Faith believed watching upcoming opponents on video helped her prepare mentally for competition. They helped her to understand the opponent's style of play which allowed her to understand what they were likely to do in a game. Also, Faith said she used these video sessions to check out the player she was likely to face in the game.

Faith recognized watching video could help players achieve personal as well as team goals. Personally, she was determined to end on a good note, possibly qualifying for conference and national tournaments; something she had failed to do in her collegiate career. Personally she wanted to score a few goals and assist on a high number of goals. Overall, she hoped reviewing film would help her choose the correct type of pass and where to play them on the field.

Faith suggested seeing mistakes on film were a huge benefit to the team. Personally, she wanted to see the team play poorly and hone in on the reasons why the team lost.

Faith explained receiving video-based feedback sessions affected her performance in training and competition because they made her think too much, and this meant during the times she would usually work on her weaknesses in training she became confused.

Faith recognized the importance of not seeing too many negative clips during video-based feedback sessions. She identified some people got embarrassed during negative clips and suggested it was crucial "a few good" clips on film were shown so people didn't think they played bad all the time.

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Faith stated video allowed her to see an accurate account of what really happened in a game and this informed her of the actual reasons why certain things didn't work out. She explained during a game she knew she had the right intentions with regards to passes and shots etc., and video allowed her to realize she didn't mean to make mistakes.

Additionally, Faith explained video allowed her to recall previous plays in a game and see things which she didn't see during games. She suggested video allowed her to see more of the field and this helped her evaluate the decisions she made in the game. Faith further explained the camera view allowed her to see "what's about to happen" due to the use of "better technology."

Faith explained video motivated her in several ways. First, viewing video motivated her to improve because she felt it could lead to her winning personal battles on the field. This, she believed could transfer into the team winning more games.

Second, Faith identified the importance of viewing "a few good" clips on film so "people don't think [they] suck all the time" and in general for people to know what they're good at. Thereby using video in the coaching process could "show you like what you're good at and you can keep doing those but also try to improve your few weaknesses."

Third, Faith found the motivational videos shown during the fall 2011 season excellent for showing past successes. She found them fun, enjoyable and confidence boosting. She told me, "They kinda get us pumped up and ready to go and, like see that's more like confidence like 'you're good, go win.'

Fourth, Faith believed viewing another college team be successful on video was good "so people see and believe that it actually works, for those who are skeptical." She

told me "A few years ago people were saying 'we're not gonna listen cos it's not gonna work' so maybe if they saw another team doing it and working they would understand it does." She explained. "North University showed us how it will work and I saw what [South City University] were doing and it worked also."

Faith believed receiving video-based feedback sessions helped her remember and implement coaching points during training and competition in several ways. First, by watching professional football players during the EPL review sessions she was able to better understand and remember the coaching points she received from her coaches. She had noticed the professional players passed the ball a lot, often choosing simple passes. Faith believed seeing this on film reinforced the head coach's mantra of "two touch only," since we had recently changed our playing style from being a direct playing team to a possession orientated team.

Second, Faith explained video appealed to her as a visual learner and she preferred it over white board and paper based learning. She told me video helped her remember coaching points because she would think about them for longer. She stated, "When I watch the film I remember it because it stays in my head longer. I don't really like stuff on the board though…[and] if I read set plays on paper I'm not gonna remember it."

Over the course of the season Faith believed video helped her improve her turning technique and tactical decisions on the field by showing her how to turn and when to switch the ball from one side of the field to the other. During the beginning of the season Faith would look on the same side of the field for a pass, but by the end of the season she noticed she opened up her body position and looked for a switch to the other side of the

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field. Faith explained her improvement was due to practicing this coaching point in training where possession games allowed her to receive the ball. Faith stated she verbalized this coaching point to herself as "turning away from pressure." Following the game against South University I noted Faith attempted to turn away from pressure on several occasions. I observed: "Faith tried to keep the ball moving on her first touch across her body looking for the switch. Although she sometimes took a bad touch she was able to find wide players who were one-on-one with their opponent." (Field note: February 25, 2012).

By improving her ability to turn away from pressure and look for a switch to the other side Faith was able to identify how the State University's outside defenders liked to receive a pass. Faith explained she would play the ball to Ellen's feet because she knew she liked to take "small touches" and "dribble down the field," whereas Caroline preferred to receive the ball in front of her because she liked to take a big first touch and dribble down the field. Understanding these preferences made it easier for Faith to make good choices when switching the ball. By the end of the spring season Faith declared switching it from one side to the other was easy and it had become second nature for her because of the video review and practice.

On the other hand Faith explained receiving video-based feedback sessions sometimes affected her negatively with regards to attending to and remembering information. Faith explained the speed of the film was sometimes too fast for her to comprehend what was happening. She stated, "I watched it obviously, my eyes are on it. But I didn't really take anything away from it. It's like a waste of time if I'm not catching on. If I'm not I know other people probably aren't." However, she admitted she hardly

watched football on television and this was possibly the reason why she had trouble understanding what exactly was going on. She commented "…we need to do it in slow motion cos it's all really fast and I couldn't see it all. Like, this person's doing this because this, but it just looks like a big clutter if you asked me…."

Faith stated she identified areas for improvement for the team from receiving video-based feedback sessions. During an individual review session she noticed how spread out the opponents midfield players were when in possession of the ball and wondered why we didn't spread out as much. Faith decided to discuss this with her teammates and explain it to them. She told me "…it was a little frustrating because the other two didn't watch it with me and see it."

On February 25, 2012 we played South University and our team was more spread out on the field. An observation from the game suggested the team were spreading out and creating space for each other: "The team did a nice job today of spreading out when we had the ball. The back line created width and the center backs split to allow us to switch it." (Field note: February 25, 2012). Likewise, Faith also commented on how well our team was spread out against South University, "I don't know if [South University] just kinda sucked or whatever, but like, we were really spread out in the midfield way more than normal."

Faith believed it was a lot easier to pass the ball because everyone had transitioned to offense and were spread out. An observation I made against South University showed Faith played some good passes into wide forwards, especially Hailey who had time and space to beat her defender: "Faith played several balls to Hailey who

was open in space on the left side. Hailey could have received more if she had been checking to the ball." (Field note: February, 25, 2012).

In regard to factors, other than video, which had a negative influence on the implementation of coaching points viewed during video-based feedback sessions there were four reoccurring themes. These were: (a) opponents (b) teammates (c) training (d) lack of ability.

Faith acknowledged the opponents affected how well she executed coaching points she viewed on video. In particular Faith noted the defensive ability of opponents affected her the most. During competition Faith admitted she felt more aware of the danger of losing possession of the ball, especially in the defensive third of the field. She declared, "When I have a defender right up my back I get nervous, because I'm nervous to lose it in that part of the field, as it's close to our goal."

Additionally, the defensive ability of the teams we played during the spring affected how well she switched the ball. Against South University she declared, "It was really easy against them because they didn't pressure us up high very much…especially in the second half where I had all day on the ball." Faith's recollection of the game against South University is consistent with my own observation of her performance:

> Faith tried to keep the ball moving on her first touch across her body looking for the switch. Although she sometimes took a bad touch she was able to find wide players who were one-on-one with their opponent (Field note: February 25, 2012).

However, against North University Faith struggled to pass the ball to teammates in the attacking seams. She recalled not having much time to pass the ball because the

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opponents had dropped into her space and her teammates were hard to pass to because, as she put it, the "…midfield wasn't how it should be…the other two weren't getting high, and so it turned out to be a two against one…"

Faith believed her teammates affected how well she executed video-based coaching points. Faith believed she didn't receive the ball enough to switch it to the other side of the field because her teammates were reluctant to pass to her when opponents were near her. She stated: "They all get nervous about that, playing it to me and seeing if a player is near to me…and against East University I think a lot of times they saw someone near me and wouldn't play it."

She further explained Caroline, along with other teammates wouldn't pass to her if she was marked tight. She believed they were especially scared to pass to her if she was in the defensive third of the field. Therefore, Faith would get closer to the defenders in order to receive a pass. By staying close to the back line Faith was too far away to close down her opponent in midfield and usually ended up mistiming a tackle. Faith explained in her journal:

> I guess another reason why I have a problem with diving in is because people are always telling me to step to the ball so now I am confused and probably over think when I should get close and close down (February, 28, 2012).

At the end of the season Faith told me she still had trouble implementing this coaching point. She explained "when we did defending we talked about my spacing…but then in practice they (defenders) were like 'get closer, get closer.'" Faith had remembered she and I had talked about her spacing when defending in midfield and for her not to get too close and dive into a tackle. Unfortunately other players were giving her different

instructions. She thought this was "kinda frustrating" since "some people…don't understand what [you have] to do to help [your]self." Faith decided not to listen to her teammates on the field but off the field she took time to "explain to them a little bit cos they hadn't seen the film." The meeting with her teammates went well and she felt they would understand in future what she was doing.

Faith explained how a training session I delivered to complement a video-based feedback session had a negative impact on learning. Faith recalled several problems with the session. She said. "That session sucked cos we didn't have a lot of numbers so that was kinda frustrating." She further added the "area was really small so I felt like I couldn't get anything going or do anything. There was a lot of thinking too so that's why I was getting frustrated." While in the session she remembered thinking "why do I have to think so much?" and she stated "There were too many restrictions cos in the real game we don't have that many restrictions on us, we just go with the flow."

Faith's lack of ability was another reason she struggled to execute a coaching point I showed her on video. The coaching point involved her heading technique from goal kicks and punts from a goalkeeper. I had advised her to take up a side on body position so she could see both the ball and her opponent; jumping to head the ball at the appropriate time. However, she couldn't physically complete the skill. She told me, "I get side on. I start in the right body position and see Allison kicking the ball, but when the ball is played I end up jumping into the player, it seems the kick always goes over my head." I asked her why she thinks she jumped into opponents and mistimes headers. She stated she panics and doubts her ability. She told me:

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But when the ball comes to me in the air I freak out. I don't know if I can head it or not. Is it actually gonna hit my head? I guess I'm confused about the timing. I've never been able to head the ball, even in club. I'm not sure what to do, like I don't feel capable of doing it. It's a lot to do all at once.

Faith struggled with her heading against North University. On several occasions she either mistimed a header or didn't move toward the ball. I observed: "Faith's body position on Allison's goal kicks is still square to the ball instead of side on. I think this is why she is unable to challenge opponents for it." (Field note: February, 25, 2012).

Against East University she struggled to time her jumps and compete for balls in the air. An observation I made during the game suggested her body position was still too square to the ball and she lacked an aggressive attitude to attack the ball when it was in the air.

At the end of the season Faith doubted whether she improved her heading. She attributed this to a lack of practicing of the skill in training and since the team was encouraged to pass there were hardly any opportunities to receive balls in the air.

Gail

In regard to Gail describing and explaining the influence video-based feedback sessions had on her athletic learning there were seven reoccurring themes. These were: (a) preparation (b) indirect influence on teammate's work ethic (c) age of receiving video-based feedback sessions (d) video refocuses everyone on football during busy academic periods (e) provided an accurate account of her performance to reflect on (f) video helped her recognize coaching points in training which she and the team were working on (g) motivation.

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Gail believed video-based feedback sessions helped her and her teammates prepare for competition by understanding the opponents strengths and weaknesses. This helped in several ways. First, the oppositional analysis reviews gave everyone an understanding on how to attack the opponent. Second, they showed everyone how to avoid making mistakes on their set pieces. She explained watching opponents set pieces let you know what to expect in the game and you could use this information and avoid being the one player who makes a mistake which leads to the opposition scoring.

Third, they allowed her to focus on the opponent she was likely to go up against, and this informed her on what to expect, including what her teammates were also likely to be doing in the game.

Gail believed individual PA review sessions had an indirect influence on those who didn't receive them by raising the quality of the training sessions. This forced those players to work harder and try to match the intensity of those who were receiving individualized feedback.

Gail explained receiving video-based feedback sessions while playing club football was often fruitless because not everyone was motivated to learn at such a young age. Additionally, she explained not everyone wanted to play competitive football following their club career so she felt they didn't pay too much attention.

Gail explained receiving video-based feedback sessions were useful to the players who were easily distracted by a busy academic schedule. She noted video helped keep everyone's attention on football during busy academic periods. She explained video allowed her to refocus on football during a time when exams and tests were causing her to be stressed.

Gail stated video allowed her to see an accurate account of what really happened in a game. She explained "Seeing is believing. Cos sometimes you hear it obviously…sometimes you can hear it all you want but for it to fully register you need to see it."

On several occasions her personal opinion was completely different to what actually occurred. Gail added during the reviews she would remember instances from the game and often realized her performances weren't as bad as she originally thought. She attributed this to her emotions in the game where her competitiveness would cloud her judgment. She explained in her journal how this revelation could help her in future. She stated in future she could "…take a minute to refocus" and not let the negative emotions affect her game; and to know her performance isn't as bad as she probably thinks.

Gail suggested viewing an accurate account of her game she was able to fully see and understand the mistakes she was making in games. This allowed her to find answers for questions she had about specific events. She explained this in her own words, "It definitely shows you, like maybe you've been questioning what's not going right in practices and games but if you see it then you can finally process what's going right, not going right and definitely try to fix it."

Gail was able to identify areas for improvement in her game from receiving video-based feedback; especially during the individual PA review sessions. For Gail video was a second chance to see what she missed on the field. Gail recognized technical and tactical areas for improvement. She explained video helped her see the passes she could have made since video showed her areas of the field she didn't get to see while playing in the game. Gail supported this in a journal entry which read:

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One of the main things I noticed when watching film is the little things that I
don't do as much as I should. One of the main things is taking on players. I rarely
use my technical ability to attack the box and that is definitely something I need
to start doing in the fall.

Additionally, Gail believed the individualized PA review sessions benefitted the
whole team by highlighting to individual players where they needed to improve. She
believed the individual PA review sessions allowed players to focus and improve
themselves and this would translate into better team performances.

Gail identified areas for improvement for the team from receiving video-based
feedback sessions. She noticed the State University's central midfield players were
playing too close together. She reaffirmed this observation in her journal "I noticed that
one of the main problems the midfield has is being too close together. Often we are right
beside each other and that makes it difficult to get out of pressure." Gail observed the
team toward the end of the spring season and noticed the team was making progress in
this area.

Gail believed video helped her recognize coaching points in training which she
and the team were working on. In particular she looked to see if the three central midfield
players were playing too close together in games and if players were trying to get behind
the opposing midfielders and into the seams. She recalled identifying coaching points I
had made during video-based review sessions being executed on the training field. In
particular she remembered seeing the midfield players improve their turning and their
positional play.

Gail stated receiving video-based feedback sessions motivated her in several ways. First, by fully understanding the mistakes she was making she became motivated to fix them. For example, viewing video helped her realize she was dwelling on mistakes in games which caused her to be nervous. In turn, this nervousness caused her to rush decisions on the field and make more mistakes. Gail explained this reflection made her realize she "needed to definitely work on not letting herself get so negative so quickly. Like if something goes wrong I need to learn how to like snap out of it." She further added, "Whenever I have a bad game I can learn to not just dwell on it, take things from it to improve on for next game."

Second, she explained watching her good performances on video gave her confidence by seeing the things she is good at. This motivated her to play more and repeat them because she saw how much ability she has.

Gail often felt down on herself while injured. Being able to watch video helped her get through those days and it gave her something to hold on for. Watching video reminded her of the ability she had and this motivated her to repeat it when she would eventually return from injury. She noted, "…if you ever feel down on yourself you can see what you've been doing right…and you can use that… until you are able to play again, and use what you see to motivate you when you start playing again."

Gail also commented on how being able to watch video while injured motivated her to continue learning and to not have any excuses when she returned from injury. She explained video allowed her to process the coaching points she needed to be learning and to "…always be thinking about [them]…" so when she returned she wasn't behind in her athletic learning.

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Furthermore, watching professional football players during the EPL review sessions motivated her to be more attacking minded and try some of the stuff they did because she saw how creative they were and how much fun they seemed to be having.

In addition, she believed the EPL review sessions had a strong influence on the State University's style of play. She believed the team was trying to pass and keep possession of the ball more, similar to the EPL teams. This included "making more smaller passes, one two's, give and go's and things like that." Gail stated this belief motivated her because she thought the team had improved in keeping possession of the ball and she could see explicitly how much improvement had been made.

In regard to factors, other than video, which had a negative influence on the implementation of coaching points viewed during video-based feedback sessions there was one reoccurring theme. This was training.

Although Gail spent the whole spring season injured and unable to practice or play in any games she identified the need for a training session soon after watching video as important for the implementation of any coaching point. She stated watching set-pieces and the way the opponent would attack was more likely to be remembered if the team practiced immediately following a video-based feedback session.

Irene

In regard to Irene describing and explaining the influence video-based feedback sessions had on her athletic learning there were six reoccurring themes. These were: (a) preparation (b) video helps achieve team goals (c) provided an accurate account of her performance to reflect on (d) motivation (e) video helped her remember and implement

coaching points during training and competition (f) individualized PA sessions increased her attention and focus more than team review sessions.

Irene believed receiving video-based feedback sessions helped her prepare for training and competition in two ways. First, she refused to watch upcoming opponents on video. She explained watching upcoming opponents on video put too much information in her head and felt it wouldn't help because she and her teammates couldn't control what the opponents were going to do. Instead she preferred to watch herself and her teammates since they could control and change their own behavior.

Second, she incorporated the coaching points she viewed on video into her training and competition day preparation routines. Although she "thought about [video] throughout the week, she liked to "think about it right before practice or game." She stated this occurred before warm ups when she would think about what she needed to do while she relaxed before kickoff. She told me she would often think about the movement she needed to have in the game and use positive self-talk to motivate herself.

Irene suggested video assisted her with helping the team achieve their long term goal of qualifying for the conference tournament by highlighting her mistakes. She stated by "being able to see what [she's] doing wrong," on video, she was able to understand "how to fix" them.

Irene stated video allowed her to see an accurate account of what really happened in a game. She stated, "You're either going to think 'Oh, I'm actually better than I thought'," or "I'm not as good as I thought." She confirmed this in a journal entry, "What I see on film is not always what I think happened during the game. So it's good to go back and look."

Irene was delighted to see she wasn't too bad at possessing the ball. She stated, "I didn't realize how good I was at keeping the ball. Like I didn't think it was as good until watching [video]." Irene attributed this to mistakes staying in her head longer. She told me she had a habit of "keeping track of how many times [she gave] the ball away," and this seemed to stick in her mind throughout a game. When, in fact losing possession of the ball "might have been only two or three times."

On the other hand she saw on video she didn't actually move off the ball as much as she thought. She told me she always thought she "had pretty good movement" but after viewing video she realized "I don't cos I stand around a lot after I play the ball, which I never really noticed to be honest." She went on to say "You think you're doing something right and then when you watch film you really know that you're not doing it." She attributed this to possible self-denial. She stated, "I feel like it's always like that, cos you don't wanna think that you're doing something wrong but then whenever someone shows you, you're like 'Oh'…No one wants to think they're doing it wrong." She further added, "there's times when I think I'm doing something and I'm watching [video] and I'm like 'Oh okay I'm not really doing that."

Irene stated she learned the most by playing the game. However, she preferred to see mistakes on video as opposed to being shown through a live demonstration. She believed she remembered more information if she watched video compared to viewing a live demonstration.

Irene stated receiving video-based feedback sessions motivated her in several ways. First, she enjoyed watching herself perform well on video because this made her feel good about herself.

Second, watching professional athletes win championships in various sports during the motivational video sessions motivated her to play football.

Third, watching professional football players during the EPL reviews showed her their success came from playing simple passes, playing fast and generally goals were scored by players simply running and not stopping.

Fourth, Irene stated having training sessions recorded motivated her to try harder in training because she felt it was the same as having more fans at the games.

Irene stated video helped her remember and implement coaching points during training and competition. She stated video helped her with her decision making on the field. This occurred for several reasons. First, she stated watching professional football players during the EPL review sessions showed her how effective they were when they kept running during games. She recognized she sometimes stopped running when she passed the ball and tried to incorporate running after making a pass.

Second, she was able to see on video that she didn't actually move off the ball as much as she thought. She told me she always thought she "had pretty good movement" Upon reflection she realized "I don't cos I stand around a lot after I play the ball, which I never really noticed to be honest."

During the beginning of the season she stated "I don't think about the sprint afterward, it's not a habit yet." Additionally she believed it wasn't natural for her to run after she passed the ball unless she saw what her teammate was going to do with the ball. She admitted to being a little scared of making a run and making mistakes and would only run if she knew she was 99% sure of receiving the ball. An observation I made

during the game against South University confirmed this and it appeared she would continue to keep running when her teammates had time and space with the ball:

Today, Irene checked short for the ball most of the time. After she passed it to a teammate she would stand or be slow to get into the box on a sprint. However, there were a couple of times when a midfielder would receive the ball with no pressure and she was very quick to spin into a channel and in fact we scored our second goal from her quick movement. It seems she only spins when it's clear a midfield player will receive it and have time on the ball (Field note: February 25, 2012).

However, as the season progressed she admitted she focused more on making sure she kept running after she passed the ball. Irene commented in a journal entry she hoped by the fall 2012 season she would have improved her movement off the ball following her passes.

An observation I made against North University supported Irene's self-professed statement of trying to continue her movement off the ball following a pass "[Irene] made some good runs in behind but this was only done when we were close to their goal or if we had somebody dribbling the ball forward and there was no opponent nearby to close her down." (Field note: February, 25, 2012).

Irene continued to make progress with her movement after she passed the ball. Against East University she made some good runs off the ball and found space in between defenders, especially when we were entering the attacking third of the field. I observed from the game Irene would make dynamic runs when she was in the attacking third of the field but not as much when the ball went beyond her.

During an individualized PA review session on April 11, 2012 Irene told me "I feel like I'm doing better about moving after I play the ball." A few days later State University played Locale University and I observed her play exceptionally well. Her movement off the ball was very high around their 18 yard box. I observed, "This evening Irene was always on the move. She didn't hesitate after passing the ball. Quite often she spun in behind after laying the ball off and got into the box on numerous occasions." (Field note: April, 13, 2012).

Irene stated watching video helped with her decision to stay higher between the opponents two central defenders. By the end of the season she noted the effect it had on her effort to apply this coaching point in training. She stated in a journal entry, "During practices I noticed myself making an effort to apply the things I learned from watching film such as staying as high up the field as possible between the two Centre backs."

Irene proclaimed she preferred the individualized PA reviews over the team review sessions because she found "…there's no distractions and stuff isn't missed cos when I'm with all of the team like you might just be focused on defense or something." She further backed this up with a journal entry which noted, "I seem to be more focused and take more out of a one-on-one session."

In regard to factors, other than video, which had a negative influence on the implementation of coaching points viewed during video-based feedback sessions there were two reoccurring themes. These were: (a) lack of ability (b) constant stress throughout the semester.

Irene struggled to implement spinning in behind the opponent's defense throughout the spring season. She explained the coaching point was new to her and

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seemed quite complex to do. This left her feeling frustrated during the times she failed to execute it. She explained the movements being asked of her wasn't necessarily simple to do and this pushed her out of her "comfort zone." She believed, although she did not give up trying the movements it did frustrate her.

Irene admitted she struggled to mentally process the times she needed to move off the ball. She confessed to waiting too long before she moved which often affected her success. Ultimately, Irene told me she did not feel capable of doing it successfully. She attributed this to her lack of speed and/or the speed of the opposing defenders. Although she admitted to not wanting to give up she did suggest "once it's not successful I'm not gonna do it anymore."

Irene admitted she failed to take fewer touches when receiving the ball. Before the game against East University she told me "I feel it's good at times but not as good as it should be. I just don't always do it. In those games I just feel like my touch is horrible so I need like five touches."

Irene found it difficult at times to keep possession of the ball against East University. An observation I made from the game suggested a poor first touch affected her ability to keep possession of the ball.

Irene believed spring break did not really change her focus during the spring. Instead she "wasn't completely focused the whole semester because she had a lot going on the whole time." Her academic workload and the stress of trying to get into medical school were constant throughout and did affect her focus in a negative way.

The five case reports and within-case analyses reveal the influence video-based feedback sessions had on each participant throughout the coaching process. An inductive

analysis, using open, axial, and selective coding was carried out to reveal the themes common to all five cases. The cross-case analysis is presented next.

Cross-Case Analysis

The purpose of this study was to understand how female college football players perceived and responded to video-based feedback sessions during their athletic training and competition. The data obtained for this study came from interviews, observations, and personal documents.

The cross-case analysis was based on the following two research questions:

1. How do female college football players describe and explain the influence of video-based feedback sessions on their athletic learning?

2. What factors, other than video, had a negative influence on the players' ability to implement coaching points received during video-based feedback sessions?

An inductive analysis of the data went through three stages: open, axial and selective coding. Following the analysis of the data three reoccurring themes emerged from the two research questions. The themes were identified if all five participants (100%) raised them during data collection. The major themes were (a) learning (b) motivation (c) barriers to implementing coaching points.

The first theme is learning and this is associated with the participants becoming more aware of information they weren't initially aware of while receiving video-based feedback sessions. The second theme is motivation and this pertains to the participants desire to act or behave on the information they received during video-based feedback sessions. The third theme is barriers to implementing coaching points and this is related

to the internal and external factors which prevented the participants from carrying out the coaching points they received during video-based feedback sessions.

Learning

The participants revealed they learned during video-based feedback sessions. They stated this occurred in five ways. First, the participants revealed receiving video-based feedback sessions prepared them tactically for competition by analysing the performances of future opponents. This helped the players become more familiar with the individual and team strengths and weaknesses of opponents, including their style of play and set-pieces, and this helped them prepare psychologically and tactically for competition.

Second, video-based feedback sessions helped the players understand the teams playing style and/or their roles and responsibilities within it. The players were able to understand their teams playing style better by watching other college and professional teams in action and comparing the positioning of the players to themselves. Also, by watching professional teams and receiving individual PA and team reviews they were able to learn about the roles and responsibilities of each other on the field. This helped them communicate more effectively and form a better understanding on the field.

Third, by receiving an accurate account of their performances on video the participants were able to identify personal and team areas for improvement. This allowed the players to re-live technical and tactical mistakes and reflect on their actual causes; which were deemed more effective compared to being told. By viewing these mistakes on video the players would think about them more during training the following week. This gave them a chance to work on them in training and competition.

Fourth, receiving video-based feedback sessions increased the players' learning of coaching points. They stated this occurred through receiving individualised PA review sessions which increased their attention to and retention of coaching points; using shortened sentences during training and competition to help them remember coaching points, and using visual cues during competition to help them remember coaching points viewed on video.

Fifth, by reflecting on their performances through video the players stated they realized their actual performances contradicted what they thought during or following a performance. The players suggested this occurred due to several reasons, including their emotions during the game and the final result of the competition. Also, the players suggested they thought about either the "really really good stuff or the really really bad stuff," during competition and this affected their evaluation of their performance. They realized viewing an accurate account of their performance let them realize they weren't at fault for certain mistakes and helped them perform in future competition.

Video-based feedback sessions prepared the players tactically through opposition analysis. Four of the five participants stated oppositional analysis reviews helped them prepare for competition. Allison recalled she focused on the central areas of the field and the opponent's forwards and central midfield players so she could see the players who were likely to cause her problems as a goalkeeper. This prepared her mentally for competition by reducing her nerves and relaxing her because she knew what the opponent's strengths were and how they were likely to attack her goal.

> I [would] look at the forwards, and I guess the midfielders too cos a lot of times
> the midfielders are the ones playing the through balls. But, I just look at the

forwards and kinda know what side they favor more I guess so that tells me if I need to cheat or if I need to play up higher or further back.

Similarly, Caroline told me oppositional analysis videos helped her prepare. Since she was a central defender she focused on the central areas of the field to see how she would have to adjust in the game. She told me:

Since I was playing center [defense] I was watching their center forward mostly to see if she was more of like a kind of check back or if she just kind of like waited. Or I looked at their midfield….I [was] just basically looking down the center of the field to see kind of where I would have to adjust.

These reviews also helped her and Daisy discuss the strengths of their immediate opponents(s). She commented:

Since it was our, me and [Daisy's] first year together we didn't have that like second instinct. I feel like the center back I played club with, since we've been together for four or five years, like we just knew. So me and [Daisy] hadn't got their yet, and so [we] had to be forceful like, 'you're going I'm staying', or 'I'm going.' It just had to be clearer who was going to do what.

On the other hand Irene refused to pay attention to the opponents during oppositional analysis reviews and the warm up stage of competition. She believed focusing on the opponent put too much information in her head, and she preferred to focus on aspects of her game she knew she could change. She wrote in her journal:

I tend to lose focus when we start talking about how the opponent plays because in my opinion it doesn't really help much. Because we cannot change anything

about our opponents play or what they do but us can change and fix anything about ourselves so that's what I prefer to focus on.

Video-based feedback sessions helped the players understand the teams playing style and/or their roles and responsibilities within it. During the spring season the State soccer team had switched from a direct to a possession orientated playing style. An objective analysis of the team's performance during the 2011 fall conference season (Appendix C) had revealed the State University team had less than 50% possession of the football against every opponent. The coaching staff therefore decided to focus on this aspect of the team performance during the spring season.

Faith stated video-based feedback sessions helped to reinforce her understanding of the newly adopted possession orientated playing style. Like Irene, Faith noticed the professional EPL players chose to play quickly; making simple passes most of the time. This revelation, she believed, helped her understand how the State head coach wanted her to play, especially since he wanted to limit the number of touches to two for each player during training sessions.

During an individual review session she noticed how spread out across the field the opponents were when in possession of the ball. This observation made her wonder why the State University players didn't spread out as much. She discussed this with me and went on to talk to her teammates about spreading out when in possession of the ball. She told me, "I had to make sure all the midfield people were on board, all three of us understood it."

Similarly, Gail noticed how close the State University's central midfield players were during competition. She confirmed in her journal "I noticed that one of the main problems the midfield has is being too close together. Often we are right beside each other and that makes it difficult to get out of pressure." Toward the end of the spring season she noticed the team was making progress in this area and she believed the EPL review sessions had a strong influence on this. She stated:

I feel like now after watching just like EPL games that you saw how possession orientated those teams are and I feel like we are trying to be a lot more possessive I guess you could say. And we were making more smaller passes, one two's, give and go's and things like that…the [South University] game we were really good like just possessing.

Allison stated the team review sessions helped her learn a lot about the roles and responsibilities of her defenders. She told me:

It's not just helping me learn about my position. I can learn you know Caroline should have pressured the ball so I should have been the one to tell her to do it or you know Ellen should have been marked up. Like you can watch the other players and learn their roles too because you know, I mean for me I kinda have to know everyone's role because I need to be the one telling them what to do. So it helps me be able to visualize where and what the other girls are supposed to be doing.

Allison told me these team review sessions helped her visualize where her teammates should be on the field and this helped her know what to say in the game. She explained how this helped her teammates. She said, "If we got scored on because

someone let their mark go or someone wasn't goal side or they didn't step at the right time, I can see that and so I can help prevent that from happening next time."

By understanding what her teammate's roles and responsibilities were on the field she was able to communicate better. In particular it helped her learn what to say and to whom. By "having an idea about how a game [was] probably gonna go" she was able to avoid making mistakes by seeing who her defenders were likely to play against. This "helped [her] know what to tell [her] defenders to do, and who to mark up on."

Video facilitated the accurate identification of personal and team areas for improvement. All five participants stated viewing an accurate account of their performance on video allowed them to reflect and correctly identify areas of their game which needed improvement. Allison explained she only fully understood her areas for improvement by seeing them as opposed to being told. She felt watching her kicking technique on video helped her enormously. She said "[It] looked really weird [on video] because I didn't realize how far I swing around the ball. I never really realized it until I saw it."

By practicing her kicking in training she thought about and reflected more on her technique and made adjustments when necessary. This helped her identify why her kicking was sometimes poor. She explained, "My natural line up is so far back [but] now I can remember and think about it and come up closer," and "when I start really far back my strides get big [and] my last stride ends over the ball… and my swing isn't going all the way through…my legs are so stretched out." She eventually became "more aware of it" and during practice she made a conscious effort to "try to not get [her] foot so far

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ahead of the ball." This led to her thinking about the coaching points she viewed on video during the beginning of competition.

Allison recalled another time during the season when video revealed her behavior to be different to what she thought. During the spring season Allison retreated into her goal when opponents had breakaways and were dribbling toward her. She declared she didn't realize she was doing it until she saw it on video. She further added these moments stayed in her mind during the one week following a video viewing, and this occurred mostly in training.

Furthermore, Allison explained one of the main benefits of video-based feedback was the ability to review mistakes. She stated, "I like going back to see the goals that I get scored on. So I can say you know I should have been set and you can take that into practice and work on that."

In support, Caroline stated "viewing games to see what went wrong was crucial as it [allowed the players] to see what went wrong and be able to fix it." This was important because, as she proclaimed, "if you never see what you're doing wrong then [you're] just gonna keep getting that wrong every time."

Gail supported this by declaring, "Seeing is believing. Cos sometimes you hear it obviously…sometimes you can hear it all you want but for it to fully register you need to see it." She stated viewing an accurate account of her game allowed her to understand the mistakes she was making in training and competition. She explained, "It definitely shows you, like maybe you've been questioning what's not going right in practices and games but if you see it then you can finally process what's going right, not going right and definitely try to fix it."

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All five participants stated viewing video allowed them to see team areas for improvement. During an individual review session Faith identified the opponent's midfield players were spread out when in possession of the ball compared to the State players. This was a coaching point we worked on as a team and Faith helped by discussing it with her teammates. She told me, "I had to make sure all the midfield people were on board."

In support, Gail also identified this team area for improvement. After watching three specific games from the fall 2011 she noted in her journal, "I noticed that one of the main problems the midfield has is being too close together. Often we are right beside each other and that makes it difficult to get out of pressure."

Video-based feedback sessions improved the players' learning of coaching points. All five participants revealed receiving video-based feedback sessions improved their learning of coaching points. This occurred in one of three ways. First, the individualised PA review sessions they received increased their attention to and retention of coaching points. Second, they used shortened sentences during training and competition to help them remember coaching points viewed on video. Third, they used visual cues during competition to help them remember coaching points viewed on video.

Individualised PA review sessions increased the players' attention to and retention of coaching points. Caroline stated she remembered the coaching points she viewed on video because of the one-on-one sessions she received. When I asked her what she believed was the main reason behind her successfully remembering coaching points

in training and competition she said it was due to the individual attention from the coach and there were fewer distractions.

Furthermore, Caroline believed receiving individualized PA reviews was more conducive to learning than team reviews. She explained this was due to two reasons. First, they helped her remember more information because they focused only on her. She told me, "When you're watching individually I think I'm so gonna automatically remember it." She attributed this to her desire to take responsibility for her actions and to fulfil her role as captain.

Second, she admitted she often paid little or no attention during team reviews. This was because I often talked about other players. She told me, "When we watch the film as a team and you say one specific thing to one person, then I don't remember anything you say or what anyone else [says]." She explained she only paid attention to me in team reviews if what I was saying was likely to affect her in competition.

As a result of receiving individualized PA review sessions Caroline believed by the end of the season she watched video with an inquisitive mind. She stated she would think "about what should have happened or what would have been a better or different idea…other options that you can see that we didn't look at and we didn't do."

Irene stated she preferred and enjoyed the individualized PA reviews over the team review sessions because she seemed to be more focused and took more out of them. She stated with individualized PA review sessions "…there's no distractions and stuff isn't missed cos when I'm with all of the team like you might just be focused on defense or something." She further commented, "Whenever we're with the team I feel like I don't take much out of it. I take more out of it when it's individual like watching film and

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hearing feedback." She further backed this up with a journal entry which noted, "I seem to be more focused and take more out of a one-on-one session."

Players used shortened sentences during training and competition to remember tactical coaching points viewed on video. Allison stated she used shortened sentences on the field to remember a tactical coaching point I had made to her during video-based feedback sessions. During an individual review session on Wednesday April, 11, 2012, I pointed out to her she needed to stay higher in the 18 yard box when the ball was in the middle third of the field. Allison recalled she remembered this coaching point against Locale University and used this self-talk to help her stop retreating further into her goal area on opponent breakaways.

Similarly, Caroline remembered a tactical coaching point I made during an individualized PA review session and applied it in training. She had recalled a specific coaching point from a video review session and during the following week in training she used short words to remind herself what to do. She stated:

> I started making a run to [Irene] and then I looked up and there's three of them (opponents) and I was like 'We just talked about not going forward all the time so support her from the back.' I didn't think of it in sentences like that but I was more of just like 'too many, get back.'

In the same sense Faith used shortened sentences to remember a tactical coaching point on video. She believed video helped her tactical decision on the field by showing her when to switch the ball from one side of the field to the other. Faith explained her improvement was due to practicing this coaching point in training and verbalizing it to herself as "turning away from pressure."

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Players used visual cues during competition to remember coaching points
viewed on video. Caroline believed watching video helped her decide when to overlap a
wide midfield player. She told me video helped her understand the visual cues of when to
make a run forward. She explained:

Either a center back or center mid would play the ball. I would start creeping

when I see Daisy or [Jacky] kinda lift their head up, or Faith kinda looking

around. That's when I would kinda start pushing up a little bit and kinda leave the

back line and… I was looking around to see how close [Leanne] was to the

sideline and how close she was to her defender or how close my forward was to

me and from there kinda be like 'Do I have enough room to make it around her?

Do I have enough time to go around her? Is she gonna play it to me if I go around

her?' Or then if their back line was really high I just need to get wide and stay

behind her'.

Caroline mentioned she particularly focused on the body position of our wide
midfielder to help her. She added:

If they (outside midfielder) get it from the center mid and their back is facing, like

if we're attacking this way and their back is to where we're attacking. Then I'll

stay behind. But then if they turn then I would usually think more about going for

it cos then they could take it in and then I'll keep going.

Caroline told me she evaluated this particular decision in games. She commented,
"That's something that I've been thinking about probably more than any of the other
[coaching points]." She attributed this to three factors. First, she is able to think more and
make better informed decisions without the ball at her feet. She stated, "That is

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something that I do think about before I'm doing it. That would be something I guess since I don't have the ball at my feet I am thinking more." Second, she told me "getting forward from the outside positions is more fun," and third, she stated "the consequences of losing the ball further up the field meant it was less risky for her to make runs.

Allison told me team review sessions helped her visualize where her teammates should be on the field and this helped her know what to say in the game. She explained how this helped her teammates. She said, "If we got scored on because someone let their mark go or someone wasn't goal side or they didn't step at the right time, I can see that and so I can help prevent that from happening next time."

Performances viewed on video contradicted what the players thought during or following a performance. Four of the five participants stated viewing their performances on video contradicted what they thought during or following a performance. This reflection helped the participants to understand either their performance wasn't as bad or as good as they initially thought and several possible reasons were offered by the participants.

The participants believed viewing an accurate account of their performance helped them realize they performed better than they originally thought. Faith recalled, "Sometimes I'm not as bad as I seem. Sometimes I think I make worse passes or something than I think." Watching video helped her understand why she felt she played bad and it often exonerated her from total blame. She explained, "In the game like when something goes bad it's like well I had the right intentions, the ball just didn't bounce my way….like I have the right idea it just doesn't work out sometimes."

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Irene supported Faith's comments by stating "You're either going to think 'Oh, I'm actually better than I thought'," or "I'm not as good as I thought." She confirmed this in a journal entry, "What I see on film is not always what I think happened during the game. So it's good to go back and look." Irene told me she realized she wasn't as bad as she thought at keeping possession of the ball. She stated. "I didn't realize how good I was at keeping the ball. Like I didn't think it was as good until watching [video]." She attributed this to mistakes staying in her head longer. She told me she had a habit of "keeping track of how many times [she gave] the ball away," and this seemed to stick in her mind throughout a game. When, in fact losing possession of the ball "might have been only two or three times."

Gail stated on several occasions her personal opinion was completely different to what actually occurred. While injured Gail reviewed games from the previous fall season. At the end of the season Gail reflected on these reviews and pointed out to me at the time she "Sometimes remember[ed] the games and [was] dreading if anything bad [was] about to happen," but then she often realized "the things [she] thought were so bad [weren't] as bad as [she] thought in the game." She attributed this to her emotions in the game where her competitiveness would cloud her judgment.

On the other hand the participants believed viewing an accurate account of their performance helped them realize they didn't perform as well as they thought. Caroline stated "I think that I do a lot more than I actually do, like I think I make a lot more runs and I think I have the ball a lot more than I really do."

Caroline suggested she felt this way because "it all blends together when you're on the field and you only remember the really really good stuff or the really really bad

stuff." She recalled reflecting on the East University game and told me "I think just since we tied and that was such a bad game…you just assume everything you do is bad almost, you can only remember the bad things."

In support of Caroline's comments Irene told me "You think you're doing something right and then when you watch film you really know that you're not doing it." She attributed this to possible self-denial. She stated, "I feel it's always like that, cos you don't wanna think that you're doing something wrong but then whenever someone shows you, you're like 'Oh, no one wants to think they're doing it wrong.'"

Motivation

The participants revealed receiving video-based feedback sessions affected their motivation in four ways. First, viewing past individual and team successes had a motivational and positive psychological effect on the players. This occurred by inspiring and motivating them as well as increasing their self-esteem and confidence.

Second, viewing other sports teams' successes had a motivational and positive psychological effect on the players. By viewing other teams succeed the players were motivated to repeat what they viewed on video and it improved the efficacy of the team. In addition it gave them a belief in what they were doing.

Third, receiving video-based feedback sessions motivated them to increase their effort and intensity levels. This occurred by having the training sessions recorded; knowing video could help the team win; and viewing personal improvements as well as mistakes on video.

Lastly, video-based feedback sessions should avoid showing too many clips which highlight individual mistakes. The players suggested this was important to protect their confidence.

Viewing past individual and team successes had a motivational and positive psychological effect on the players. All five participants believed viewing past individual and/or team successes had a motivational and positive psychological effect on them. Allison stated "When I see myself have a really good game or whatever that makes me think I can be really good." This helped her realize if she had a good game she "should be able to do it all the time." This increased her confidence by showing her she was capable of producing good performances and reminded her she was capable of repeating them in competition. In particular, she explained the motivational videos shown during the fall 2011 season helped motivate her and the team before a game. She declared they "[got] us excited to go out and play, and a lot of times she (assistant coach) does highlight plays so it kinda pumps you up and motivates you to do the same things that you saw on video."

In agreement, Caroline stated watching video motivated her because she enjoyed watching herself do good things on video as this made her feel good and reaffirmed what she had been working on. Likewise, Irene stated receiving video-based feedback sessions motivated her because she enjoyed watching herself perform well and this made her feel good about herself.

Similarly, Faith believed watching "a few good" clips on film was important so "people [didn't] think [they] suck[ed] all the time" and in general for people to know what they're good at. Thereby using video in the coaching process could "show you like

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what you're good at and you can keep doing those but also try to improve your few weaknesses." She added the motivational videos were excellent for showing past successes. She found them fun, enjoyable and confidence boosting. She stated, "They kinda get us pumped up and ready to go and, like see that's more like confidence like 'you're good, go win.' Also, she explained watching her good performances on video gave her confidence by seeing the things she is good at. This motivated her to play more and repeat them because she saw how much ability she has.

Gail, who was injured most of the spring 2011 season, often felt down on herself so being able to watch video helped her get through those days and give her something to hold on for. Watching video reminded her of the ability she had and this motivated her to repeat it upon her return from injury. She explained:

As much as it sucks to not be able to play, video will be…the best thing you have because…it helps you, it definitely teaches you everything you need to improve on and it shows you what you're doing right. So if you ever feel down on yourself you can see what you've been doing right the whole time and you can use that, keep that in your mind, until you are able to play again, and use what you see to motivate you when you start playing again.

In a similar way Gail was motivated by seeing how much the team improved at keeping possession of the ball. This stemmed from the EPL review sessions which she believed had a strong influence on the State University's style of play. She stated:

It seemed people were trying to attack more in a different sort of way like, sometimes before we were just like very direct but I feel like now after watching just like EPL games that you saw how possession orientated those teams are and I

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feel like we are trying to be a lot more possessive I guess you could say. And we were making more smaller passes, one two's, give and go's and things like that…the [South University] game we were really good like just possessing.

Viewing other sports teams' successes had a motivational and positive psychological effect on the players. Four of the five participants believed viewing other sports teams' successes had a motivational and positive psychological effect on the players. Faith believed viewing another college team be successful on video was good "so people see and believe that it actually works, for those who are skeptical." She told me "A few years ago people were saying 'we're not gonna listen cos it's not gonna work' so maybe if they saw another team doing it and working they would understand it does." She explained "North University showed us how it will work and I saw what [South City University] were doing and it worked also."

In the same sense Gail stated watching professional football players during the EPL review sessions motivated her to be more attacking minded and try some of the stuff they did because she saw how creative they were and how much fun they seemed to be having.

Similarly, Irene was motivated during the motivational videos from watching professional athletes win championships in various sports. She told me "[I] love them. I feel like anything even if it's not soccer, any sport when I see that kind of stuff it's just inspirational. I enjoy that." They reminded her of March madness during basketball season where "they have a video, a commercial [with] all the people that have won the championship…and all these really awesome plays and it gets me ready to play."

Receiving video-based feedback sessions motivated the players to increase their effort and intensity levels. All five participants believed receiving video-based feedback sessions motivated them to increase their effort and intensity levels. Caroline explained having training sessions recorded motivated her to put more effort in training. She explained, "if it [video recorder] wasn't there it would have been 'Oh that's just one run, I didn't make it, oh well', but I was like 'I'm just gonna do it.'" During one particular training session when the coaches were absent she noted:

> Everyone was like 'They probably watch the film' or whatever so when they were saying it's filmed and we were doing all that crossing stuff I was like 'XXXX if they're gonna watch this I'm gonna be making my runs', so even if you guys aren't there I was like 'well if they're gonna watch it then I at least don't wanna them to be like '[Caroline] sucked today, like she didn't do anything'

> Faith explained watching video motivated her to try harder and improve because she felt it could lead to her winning personal battles on the field. This, she believed could transfer into the team winning more games "cos if you get better out here you'll be better than the person you're playing against and that goes into winning."

> Irene stated receiving video-based feedback sessions allowed her to see the progress she was making and this increased her work rate. At the start of the spring season she noticed she didn't actually move off the ball as much as she thought she did. She told me she always thought she "had pretty good movement." Upon reflection she realized "I don't cos I stand around a lot after I play the ball, which I never really noticed to be honest." This led her to change her behaviour. She admitted during the spring season "I don't think about the sprint afterward, it's not a habit yet," and she told me she

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was frightened of making mistakes and would only run if she knew she was 99% sure of receiving the ball.

As the season progressed Irene admitted she focused more on making sure she kept running after she passed the ball. Irene commented on this in a journal entry:

One thing that was pointed out during this process was my lack of movement at times after I play the ball. So I have been making an effort in practice and our spring games to fix this because I know that will help my game.

Irene continued to make progress with her movement after she passed the ball. Against East University she made some good runs off the ball and found space in between defenders, especially when we were entering the attacking third of the field. I observed:

Around the middle third of the field Irene still had trouble sprinting into the box when the ball was played wide or beyond her. However, when she was further up the field she made some very dynamic runs across the defenders or in the spaces between the defenders. This put her in some good positions to receive through balls (Field note: April, 4, 2012).

A further journal entry revealed she had increased her effort levels due to receiving video-based feedback sessions:

Throughout this process I have grown to like it because I began to see improvements in my game. During practices I noticed myself making an effort to apply the things I learned from watching film such as staying as high up the field as possible between the two centre backs. During this process I feel like doing that started to become second nature.

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Similarly, Gail stated watching mistakes motivated her to change her behaviour. She stated:

I think everyone is different about how they go about changing things. I know for me personally after I saw [mistakes] I knew I wanted to fix it…because I knew I could do better, and I knew I had more potential that I can obviously play better. And it's just frustrating sometimes to see…the frustration kinda turns into motivation cos it makes you wanna change it.

The use of video to highlight individual mistakes. Four of the five participants commented on how important it was not to show too many clips which highlighted individual mistakes. Allison explained "if you're seeing negative stuff on yourself every day that might kind of bring you down a little bit."

In support Faith believed it was important to see positive clips during video-based feedback sessions. She believed "some people get embarrassed when they make mistakes or do stupid things on the field." Therefore, it was important to see "a few good" clips on film so "people don't think [they] suck all the time."

Barriers to Implementing Coaching Points

The participants revealed there were three barriers to implementing the coaching points they viewed during video-based feedback sessions. First, ineffective training sessions affected how the players implemented coaching points viewed on video. The players reported they were more likely to think about and remember coaching points if training sessions quickly followed video reviews and if the sessions had an ample number

of players available to play a realistic game (i.e. an eleven-a-side game, directional and

without restrictions).

Second, life as an intercollegiate student-athlete affected how well they focused

and ultimately performed during training and competition. The pressures to perform

academically and athletically were great and a return from spring break seemed to have

derailed their attention and drive.

Third, psychological factors influenced how the players implemented coaching

points viewed on video. The players explained cognitive anxiety and low self-efficacy

affected their ability carry out coaching points viewed on video. This occurred when

attempting new techniques and tactics; playing against perceived stronger or weaker

teams and their position on the field.

Ineffective training sessions. Four of the five participants suggested ineffective

training sessions led to a breakdown in the learning and subsequent carrying out of

coaching points they viewed on video. Caroline explained it was important for training

sessions to quickly follow video-based feedback sessions. She stated she thought about

the coaching points a lot more when training sessions quickly followed video reviews. In

addition they needed to be game realistic to allow learning to transfer from video to the

field. This was especially true of training sessions which were directional. She

commented:

> I think when we play five versus five or going to goal then it's more of a game
>
> we're doing, then I think [about the coaching points] a lot more, or when we're
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> playing with the two smaller goals on a smaller field or defense versus offense it
>
> was easier to kinda apply them cos it was more realistic.

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Caroline recalled a training session I delivered on Friday March 30, 2012 the day following a team review session. During the review I showed the team how North University defenders had successfully dribbled and passed the ball out of their defensive third and into the middle and attacking thirds of the field. Caroline noted there were several issues with my training session. First, she recalled several key players missing due to injury which restricted the session to a small sided game and this she believed affected her understanding of the coaching point. Also, she noted "I think it was a good idea but I think it just wasn't a good practice that day because it [was] Friday and it was raining and no one was like even trying almost."

Faith supported Caroline's comment by telling me that particular training session had a negative impact on her learning. She recalled several problems with the session. She believed, "That session sucked cos we didn't have a lot of numbers so that was kinda frustrating." She further added the "Area was really small so [she] felt like [she] couldn't get anything going or do anything." Overall she thought "There were too many restrictions" in the session, "cos in the real game we don't have that many restrictions on us, we just go with the flow."

In support, Gail identified the need for a training session soon after watching video as important for the implementation of any coaching point. She stated:

When we would watch film and go out and practice right after, I think that helped especially when we worked on set pieces…but definitely stuff like players and certain ways they would attack that we would go over in that practice stayed with you for the game.

My field notes from the sessions supported their sentiment. It stated:

I coached today. The players were wearing their rain jackets as it was raining heavy by the start of the session. I designed a relatively simple session to encourage Caroline, Ellen, and Brittany to dribble out of the back line to create passing opportunities and 1-2s. The teams were asked to pass and move around the field as a warm up. Both teams looked sluggish and disinterested. There was very little movement from both teams and I could tell they didn't want to be there. (Field note: March, 30, 2012).

Life as an intercollegiate student-athlete.

Four of the participants commented on how their life as a student-athlete affected their commitment during the spring season. They suggested maintaining 100% commitment was difficult due to their hectic lives. Allison believed spring break may have affected the mentality of the players. She stated it appeared some players were still in "spring break mode," when they returned and along with receiving more academic work from professors may have affected their commitment in training and in competition.

Gail believed the first training session back after spring break was disappointing because of a lack of focus from the players. She said "the intensity wasn't there right away, like it took a long time to build up the intensity in the practices. You could tell people were a little less focused than we always are in practice."

Caroline concurred with Allison and Gail. She believed taking a "break for nine days during spring break," and life as a student-athlete was an issue for her and her teammates. Especially when it came to staying committed to football. She noted:

We just have so much to do, like the past week you know how I said I've been doing these tedious flash cards, so I go to class from 8 to noon. Then I'll be in the

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library from noon to 4, till treatment. So then right after that practice. And then,

so it's just like so just tiring I guess.

Furthermore, she believed a change in the intensity of team training affected the

team's focus in a negative way. She explained: "From a team standpoint we didn't do any

more fitness at practice. And I know no one does anything outside of practice." Also, she

stated "I think it's more of, it's almost summer. That's what's causing people to lose

focus…it's a countdown."

In agreement, Irene declared she "wasn't completely focused the whole semester

because she had a lot going on the whole time." Her main distraction was her academic

workload which was stressful and the constant effort needed to try to get into medical

school affected her focus in a negative way.

Psychological factors. Four of the five participants revealed psychological

factors affected their ability to implement the coaching points they received during video-

based feedback sessions. These psychological factors were cognitive anxiety and low

self-efficacy.

Cognitive anxiety. Cognitive anxiety can have a negative effect on athletic

performance. The participants revealed they experienced three different types of

cognitive anxiety while trying to execute coaching points viewed on video. These

included fear of failure, indecision and low concentration.

Fear of failure. One form of cognitive anxiety is a fear of failure and this is

associated with a feeling which prevents us from completing tasks required to achieve

our goals. Allison explained she feared making mistakes when trying a new kicking

technique and would return to her original technique if her leg became tired. Ultimately her kicks wouldn't go as far with the old technique and she became even more nervous when the opponents would win the initial challenge from her goal kicks.

Caroline stated nervousness and a fear of failure prevented her from successfully implementing the coaching points she viewed on video. Caroline admitted she was reluctant to dribble as a full-back when State played stronger teams. Her nervousness and awareness of making mistakes meant she looked to make more runs without the ball than with it. Caroline stated when she played against North University she was more cautious. She noted, "I was on the outside. I was just more aware of erm, if I did, was gonna like lose the ball there'd be a much bigger after effect, like reciprocation." This fear of making mistakes led to a lot of negative self-talk during that game. She told me, "I was like 'really can't mess up' and so I felt I didn't even dribble as much nearly [against North University]."

In the same sense Faith acknowledged her position on the field and the defensive pressure applied by opponents affected her ability to carry out coaching points. Faith believed her position in the defensive third of the field affected how nervous she was, and she became more aware of losing possession of the ball. She declared, "When I have a defender right up my back I get nervous, because I'm nervous to lose it in that part of the field, as it's close to our goal."

Furthermore, Faith believed her teammates affected how she executed the coaching points viewed on video. Faith believed she didn't receive the ball enough to switch it to the other side of the field because her teammates were reluctant to pass to her when opponents were near her. She stated, "They all get nervous about that, playing it to

me and seeing if a player is near to me…and against East University I think a lot of times they saw someone near me and wouldn't play it."

She further explained:

I guess I like to get close to them so they feel safe to pass to me cos a lot of the times they're like 'you have a man on your back' and they won't pass to me. Like Caroline will never pass to me if there's a person on me…I told her it's okay but she kinda freaks out about it cos we're in our defensive third of the field.

Indecision. Another form of cognitive anxiety in indecisiveness and this is characterized by a lack of confidence which prevents us from making quick decisions. Caroline explained her anxiety on the field also came from her being indecisive and this affected how well she implemented coaching points. Her indecision stemmed from a lack of preparation and in particular when opponents played differently to what she was expecting. During the game against East University she noticed they were defending differently to what she (and the State University team) had prepared for. This confused her and left her with unanswered questions on the field, "Do I keep going? Do I stay? Cos [Jacky's] going forward and we need three back. So do I need to pinch?" This caused her to stop running forward when Jacky dribbled past the half way line and she would drop into the back line to make three defenders. The tactics used by East University had caused clear uncertainty in Caroline, leading to a detrimental performance.

Faith also experienced some indecision during the spring season. She recalled being confused on when to time a tackle as a central midfield player. This timing issued was due to receiving contradicting information from coaches and teammates. Faith explained in her journal:

I guess another reason why I have a problem with diving in is because people are always telling me to step to the ball so now I am confused and probably over think when I should get close and close down (February, 28, 2012).

She further explained "When we did defending we talked about my spacing…but then in practice they (defenders) were like 'get closer, get closer'" Faith had remembered she and I had talked about her spacing when defending in midfield and for her not to get too close and dive into a tackle. Unfortunately other players were giving her different instructions, causing clear confusion which she thought was "frustrating" since "some people…don't understand what [you have] to do to help [your]self."

Low concentration. Low concentration is another type of cognitive anxiety and this is seen as a lack of ability at maintaining attention and focus on a task regardless of internal or external distractions. Caroline believed her perception of opponents affected how well she implemented the coaching points viewed on video. In particular Caroline believed the ability of opponents affected her concentration. She said "I think [South University] is the main one that I was dribbling with my head down and I think I was probably just a little cocky being like 'Ah it's [South University] whatever.'" Caroline had remembered one moment from the second half where she "whiffed the ball along the side-line" which left her "cringing" and thinking "I'm not doing that again."

Low self-efficacy. Self-efficacy is a psychological construct and is defined by Bandura (1995) as "The belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). Caroline stated the opponents sometimes had a negative impact on her ability to implement coaching points. The

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defensive arrangement of Locale University affected how well she dribbled and passed the ball out of the defensive third and into the middle and attacking thirds of the field. She felt if she lost possession of the ball there would be major repercussions on her and the team. This affected her willingness to try the coaching point. She explained:

I think because Locale University had a much higher (forward) line than East University and I think it goes back to them being a better team. And so, more risky. Cos one time I did dribble a little bit, went to pass to Mary, and passed it to the other team.

Similarly, Faith doubted her ability to execute certain techniques throughout the spring season. During video-based feedback sessions I repeatedly showed her how to position herself and head the ball from goal kicks and goalkeeper punts. However, on several occasions she failed to execute headers successfully. She told me, "I get side on. I start in the right body position and see Allison kicking the ball, but when the ball is played I end up jumping into the player, it seems the kick always goes over my head." I asked her why she thinks she jumped into opponents and mistimes headers. She stated, "I've never been able to head the ball, even in club. I'm not sure what to do, like I don't feel capable of doing it. It's a lot to do all at once."

An observation during a game against North University supported her statement: Faith is still too square on goal kicks. Even the times when the ball is there to be won she doesn't attack the ball like she should. She looks afraid to put her head on the ball and many times she doesn't challenge for it in the air (Field note: April, 4, 2012).

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Throughout the season Irene doubted her ability to run behind the opponent's defense. She explained the coaching point was new to her and seemed quite complex to do. This left her feeling frustrated when she failed to execute it. She explained:

If it's something new that's like totally out of my comfort zone then yeah I'm like 'I don't know what to do.' I don't necessarily want to give up but it's almost like frustrating cos it's like, that's completely out of my comfort zone and like when you've been playing soccer your whole life and then your asked to do something you've never ever done it's hard to do it.

Although Irene saw the benefit of spinning in behind the opponent's defense she told me she didn't feel capable of doing it successfully. She stated:

At times I don't think I'm fast enough for some of those runs. I feel like there were times when I did make the run but I couldn't get to the ball. Sometimes their center backs are really fast. I mean I'm still gonna try to do it anyway but sometimes I feel like that's not enough to get to the ball so once it's not successful I'm not gonna do it anymore.

Summary

This chapter introduced the five participants of this study and provided with-in case analyses and a cross-case analysis. The participants were all female college football players at State University. Three major themes emerged from the data. These themes were: (a) learning (b) motivation (c) barriers to implementing coaching points.

In the next chapter I will discuss these themes using Albert Bandura's Social Cognitive Theory as a frame of reference and how they are placed in the existing

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literature. Additionally, the themes will be used to answer to the study's two research

questions:

1. How do female college football players describe and explain the influence of video-based feedback sessions on their athletic learning?

2. What factors, other than video, had a negative influence on the players' ability to implement coaching points received during video-based feedback sessions?

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter is to provide a summary of the study and to present conclusions from the data provided by the five case studies. This chapter also addresses recommendations for future research in the use of video-based feedback sessions in the coaching process. Finally, implications for video-based feedback sessions in coaching are presented.

Summary

Sports coaches, and in particular football coaches now use some form of PA in their coaching practices (Drust & Green, 2013; Liebermann et al., 2002). We now know football coaches use PA to design and deliver video-based feedback sessions as part of their coaching routines (Groom & Cushion, 2005; Groom et al., 2011; Groom & Nelson, 2012; O'Donoghue, 2006).

Research has focused mainly on how coaches and performance analysts use PA and video-based feedback sessions in the coaching process (Groom et al., 2011). This focus has left a gap in the literature relating to how athletes perceive and respond to receiving video-based feedback sessions in the coaching process. As a result "very little is known about how athletes experience, understand, and subsequently respond to their coaches' application of this educational technology" (Nelson et al., 2011, p. 2).

Moreover, Mackenzie and Cushion (2012) stated research has neglected to investigate the impact PA has had on athlete learning and information retention.

It is critical football coaches of all levels understand how their players perceive and respond to their delivery of video-based feedback sessions during training and competition. By doing so, researchers and practitioners can better understand "the impact PA has on athlete learning and information retention as part of performance feedback" (Mackenzie & Cushion, 2012, p. 2). This knowledge could help inform coaches on how to effectively deliver video-based feedback sessions and optimize athlete learning within the coaching process.

Therefore, the purpose of this study was to understand how female college football players perceived and responded to video-based feedback sessions during their athletic training and competition. To achieve this I carried out a multiple-case research study with five female amateur (collegiate) football players.

The questions that this research study addressed are as follows:

1. How do female college football players describe and explain the influence of video-based feedback sessions on their athletic learning?

2. What factors, other than video, had a negative influence on the players' ability to implement coaching points received during video-based feedback sessions?

The themes which emerged in this study will be discussed as they relate to the study's research questions and current PA literature. I will use qualitative data collected from the five participants to discuss and draw conclusions from the findings and how they are placed within the current PA literature. Finally, I will suggest areas for future research along with implications for using video-based feedback sessions in the coaching process.

Discussion

The present study explored the influence video-based feedback sessions had on five female college football players. The data revealed the video-based feedback sessions had an impact on the players learning and motivation, and notable barriers to learning, other than video, existed within the coaching process.

Research Question 1

The present study revealed two themes regarding how female college football players described and explained the influence of video-based feedback sessions on their athletic learning. These were learning and motivation.

The present study supports previous research on the use of video-based feedback sessions to improve athlete learning in several ways. First, the participants revealed oppositional analysis feedback sessions prepared them for competition by helping them identify the individual and team strengths and weaknesses of opponents, including their style of play, which helped them prepare tactically for competition.

The data gathered did suggest the playing position of the participants influenced how they perceived and acted upon the information they received during oppositional review sessions. The goalkeeper and defensive players honed in on the opponents who they were likely to be facing in the game. These players were particularly interested in knowing how their immediate opponent(s) would affect them and what changes or adjustments they would have to make to their performance in order to perform optimally. For example, Allison stated,

> I [would] look at the forwards, and I guess the midfielders too cos a lot of times the midfielders are the ones playing the through balls. But, I just look at the

forwards and kinda know what side they favor more I guess so that tells me if I

need to cheat or if I need to play up higher or further back.

Caroline supported this by declaring,

…since I was playing center [defense] I was watching their center forward mostly

to see if she was more of like a kind of check back or if she just kind of like

waited. Or I looked at their midfield….I [was] just basically looking down the

center of the field to see kind of where I would have to adjust.

Also, the midfield players paid close attention to the physical attributes of their

opponents; taking stock of the possible physical match up they may have. In support

Faith stated,

I like to see what my player looks like, that I'm going against. How big she is and,

um, you get to see how their style of play is, like what they're bad at. So you can

try and make them do what they're bad at.

The players explained knowing this information had a relaxing effect on them

before competition and gave them a sense of feeling prepared. This finding is important,

given that research on the use of oppositional analysis reviews has only come from

coaches who contend they are used for building confidence, highlighting opponents'

patterns of play and weaknesses, and providing players with a clear perception of the

opponents (Groom et al., 2011). The finding that players will pay specific attention to

these reviews based on the position they play has clear implications for coaching and

delivering video-based feedback sessions which will be discussed later in the chapter.

These findings are supported in the PA literature by football coaches and

performance analysts (Carling et al., 2005; Maslovat & Franks, 2008; Nelson & Groom,

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2012; O'Donoghue, 2006) at the elite semi-professional (Groom et al., 2011) and elite developmental level of football (Groom & Cushion, 2005; Nelson et al., 2011; Reeves & Roberts, 2013).

Second, the participants revealed observing professional teams (expert models) helped them learn. In this instance the players were able to understand the new playing style the head coach wished to adopt by comparing the positioning of professional players during EPL review sessions to themselves (vicarious experiences). This comparing also helped them understand their roles and responsibilities within the team. This understanding was further reinforced by learning the roles and responsibilities of their teammates during video-based feedback sessions and by communicating with each other in the game. This supports Groom et al. (2011) who found English youth football coaches delivered video feedback sessions to players who played the same position to increase their understanding of their role in the team. Similarly, Groom and Cushion (2004) found two football coaches would review a game to reflect on and shape the teams playing style as well as highlighting to players the technical information related to their roles and responsibilities in the team. Likewise, Reeves and Roberts (2013) found the academy football coach they interviewed suggested individual PA sessions improved the players by helping them understand their responsibilities within the team. In the same sense Jenkins (2006) found motivational videos helped netball players understand the overall playing style of the team. The finding that the players learned through watching professional players on video has clear implications for coaching and delivering video-based feedback sessions which will be discussed later in the chapter.

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Third, the participant's revealed video helped them learn by seeing what caused theirs and teammates' mistakes. They achieved this by re-living their mistakes on video and by reflecting on them. They declared viewing mistakes on video was more effective than being told by a coach because they thought about them more during training the following week. Also, by viewing other teams they were able to see deficiencies in their team. This supports Groom and Cushion (2004) who found video was a useful way for youth football coaches to highlight to players their technical and tactical mistakes. Furthermore, Groom and Cushion (2005) found 9 of the 10 elite developmental male academy football players they surveyed believed PA helped them learn by identifying individual and team weaknesses. In addition, Reeves and Roberts (2013) found five elite developmental male youth football players believed video based PA impacted team performances by identifying weaknesses. Finally, Carling et al. (2005) and Carling, Reilly, and Williams (2009) found coaches and athletes reflect on their mistakes when watching video in order to improve performance.

Fourth, the participants revealed how a true account of their performance on video differed to what they actually thought during or following a performance. These revelations included examples where players thought they played well but video proved otherwise and examples where players thought they did not play well but video proved they actually played better than they thought. The players suggested the emotions they felt during a game influenced how they perceived their performances. The players further explained their accurate recollection of a performance was hampered because they either thought about the positives or negatives, which had inadvertently stuck in their mind throughout. This supports the findings by Carling et al. (2005), Groom and Cushion

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(2004) and Groom et al. (2011) who found football coaches realized the performances of their players were either better or not as good as initially thought following a game review; attributing their emotions as the cause of their misinterpretation. In support a performance analyst interviewed by Reeves and Roberts (2013) supported these findings by stating the initial reactions following a match, whether it is from a coach, player, or analyst, is usually an extreme one. Therefore, the ability to reflect through PA usually reveals a performance to be not as bad or good as first thought.

The present study extends previous research on the use of video-based feedback sessions to improve athlete learning at the developmental level of football in two important ways. First, the nature of individualized PA review sessions meant they were highly conducive for learning. These video-based feedback sessions provided individualized instruction and met the specific needs of individual players. This is very important for football players, especially at the development level. The participants explained these sessions provided them with an opportunity to focus on the performances they wanted to see, especially the poor ones, and provided an interruption free and personalized focused review. In turn this increased their attention to coaching points because they felt it impacted them personally, as opposed to team reviews which they felt did not. Also, due to the lack of distractions more attention was given to coaching points and important information was less likely to be missed.

Additionally, the players in this study declared they were more likely to pay attention during team review sessions if the coaching points impacted them personally, as opposed to team reviews when I was talking about other players or parts of the team which they felt did not involve them. Again, this suggests the importance of delivering

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individualized coaching points, even during team review sessions, since the first step in the learning process is attending to the information presented.

This finding extends the research on both the use (Groom et al., 2011; Wright et al., 2012; Wright et al., 2013) and effectiveness (Partridge & Franks, 1992) by providing empirical evidence from football players for the first time as to how individualized PA reviews can facilitate learning. This finding is important given that the only research from athletes which explains how and why they pay attention to coaching points during video-based feedback sessions comes from Nelson et al. (2011) who found an elite ice-hockey player and his teammates were more likely to pay attention to team reviews if they perceived it to be presented in a professional way and they had respect for the coach. This finding has clear implications for coaching and delivering video-based feedback sessions which will be discussed later in the chapter.

The concept of OL can be used to explain why the players believed they were more likely to pay attention to and remember coaching points from individualized PA reviews than team review sessions (Bandura, 1986). During these individualized PA review sessions the players had an opportunity to learn from both a verbal instructional model (football coach) and symbolic models (real athletes performing on video).

Bandura (1986) stated the first process of OL is actually paying attention to the model and contended this to be an important factor in learning (Bandura, 1986). A subprocess of attention is the modelled event. Bandura (1986) stated the functional value of the event impacted the attention given to it. This included the importance of the event to the observer and the expectation they would have to manage situations similar to it. He stated "When events compete for attention, people who expect to perform similar tasks

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pay greater attention to modeled conduct and learn it better, than if they consider the modeled activities to be personally irrelevant" (p. 59). Bandura also stated observers were more likely to copy the behavior of the model if they perceived it to be similar to him or her.

Additionally, Bandura (1986) stated the discriminability of the event affected attention. He believed observers who are easily distracted find it difficult to hold their attention long enough to learn from modelled events. In this case the players explained the lack of distractions during individualized PA review sessions was a reason they paid more attention and less likely to miss important information shown on video.

Another subprocess of attention is the observer attributes. Bandura (1986) declared learning was impacted negatively if the observer's attention was affected by deficient cognitive skills. It seems the personalized approach to the individualized PA review sessions provided the players with an opportunity to explore their performances without distractions and to attend to information which focused on them solely. Another attribute of an observer which leads to an increase in attention is their emotional arousal. It appeared the players were more aroused during their individualized PA review sessions than team review sessions due to its personalized nature.

Second, given the focus on the development of players at this level of football the participants revealed they remembered coaching points in two distinct ways. First, they explained they used shortened sentences on the field to help them remember coaching points they viewed on video. These examples included a goalkeeper remembering not to retreat into the box during opposition breakaways, a wide defender knowing when to

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overlap a wide forward and a central midfield player deciding when to switch the ball from one side of the field to the other.

This finding is important, given that the PA research has yet to discuss reasons how football players retain information at a developmental level. Football players and coaches have documented learning takes place through video-based feedback sessions (Groom & Cushion, 2005; Nelson et al., 2011; Reeves & Roberts, 2013), however, PA research has failed to address how learning is transferred from video to field in football, instead focusing on behavior to evident learning. This extends the PA research base by providing first empirical evidence from players as to how they processed information from video, suggesting coaches could help speed up the learning process with interventions. This finding has clear implications for coaching and delivering video-based feedback sessions which will be discussed later in the chapter.

The concept of OL can again be used to explain why the players were able to remember the coaching points they received during video-based feedback sessions. The second process of OL included how the information is retained by the observer (Bandura, 1986). Bandura (1986) stated if an observer has given adequate attention to modeled behavior, the information can be stored symbolically. He stated "By observing others, one forms rules of behavior, and on future occasions this coded information serves as a guide for action" (p. 47). The players explained they coded their coaching points verbally to help them remember.

In addition, Bandura (1986) suggested complex sequences or behaviors can be reduced to manageable components in the form of verbal descriptions (language) and stored in memory. This symbolic representation is later recalled and used with a new

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action to replicate the modeled behavior. It appears the players used shortened words or sentences to code the coaching points they viewed on video.

Second, the players explained they used visual cues on the field to help them remember tactical coaching points they viewed on video. These examples included a goalkeeper identifying players positioning when goals were conceded and a defender using body position of teammates to know when to make forward runs. This finding has clear implications for coaching and delivering video-based feedback sessions which will be discussed later in the chapter.

The concept of OL can again be used to explain why the players were able to remember the coaching points by using visual representations. Bandura (1986) suggested complex sequences or behaviors can be reduced to manageable components in the form of mental images (imagery) and stored in memory. This symbolic representation is later recalled and used with a new action to replicate the modeled behavior.

The present study supports previous research on the use of video-based feedback sessions to motivate athletes in several ways. First, the participants revealed the motivational videos they received boosted confidence levels and motivated them to repeat what they saw on video. These included seeing clips of themselves perform successfully, as well as other college and professional teams performing successfully.

The use of motivational videos to increase motivation and confidence is well documented in the PA literature in elite developmental football (Groom et al., 2011) and netball (Jenkins, 2006; Jenkins et al., 2007; O'Donoghue, 2006). The players in this study received boosts in confidence from seeing themselves and similar models perform successfully and were motivated by self-produced (pride) and vicarious reinforcement.

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By seeing themselves perform successfully and other teams rewarded for their actions they were motivated to repeat what they saw (Bandura, 1986).

The notion of vicarious experience, taken from Bandura (1977) and his concept of self-efficacy can be used to explain why the players believed viewing other college and professional football teams increased the efficacy of the State University team. Bandura stated a person's belief they are capable of performing an action will increase if they see a similar model achieve positive outcomes. By viewing other college teams succeed on video the players in this study believed the State University team had more belief in what they were doing as a team. The participants explained these reviews were crucial for providing them with the belief and confidence to repeat what they viewed. This is supported by Groom et al. (2011) who reported English youth football coaches would show professional players perform successfully as a way to improve the confidence and motivation of their players. Likewise, Nelson et al. (2011) found an elite male ice-hockey player reported increased confidence and motivation from watching professional teams succeeding in similar situations to himself (vicarious experiences).

The concept of OL can again be used to explain how viewing other sports teams' successes had a positive psychological effect on the players. Bandura (1986) stated an observed behavior is likely to be reproduced if there is sufficient incentive or motivation to do so. In this instance the players were motivated by vicarious reinforcement. By viewing other players and teams being rewarded for their actions they were motivated to repeat what they saw.

Second, the participants stated video-based feedback sessions motivated them to increase their effort and intensity levels by watching mistakes on video and wanting to fix

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them and avoid repeating them in future. This is supported in the PA literature by Reeves and Roberts (2013) who found a male youth football player was motivated to work harder when he viewed his negative clips in front of his peers during video-based PA.

The concept of OL can be used to explain why the players were motivated to work harder after viewing mistakes on video. Bandura (1986) stated past punishment can motivate a person to avoid repeating the same behavior. Here the players were motivated to work harder in order to avoid repeating the mistakes on video.

Third, the participants stated showing too many clips which highlight individual mistakes could affect the confidence of the players and suggest players need to see positive clips during video-based feedback sessions. This is supported by Carling et al. (2005), Groom and Cushion (2005); Groom et al. (2011) and Reeves and Roberts (2013) who found football coaches at the elite developmental level would balance positive and negative clips when delivering video-based feedback to athletes, suggesting negative clips should be kept to a minimum, especially if an individual or team was lacking confidence. This same sentiment has been found in ice-hockey (Nelson et al., 2011) and netball (O'Donoghue, 2006).

The present study extends previous research on the use of video-based feedback sessions to motivate athletes at the developmental level of football in three important ways. First, the gender of the participants may have influenced how they received and responded to video-based feedback sessions. All five female participants in this study revealed how receiving motivational, team and individualized PA review sessions increased their self-esteem and/or self-efficacy. They stated seeing their past individual and team successes made them feel good about themselves, which in turn increased their

belief in repeating successful performances. This extends the finding from Groom and Cushion (2004) who found only 6 out of 10 male elite developmental level players agreed video debrief sessions increased their confidence. This suggests female football players may value video-based feedback sessions more for its benefits in boosting confidence and self-worth compared to male players. This finding has clear implications for coaching and delivering video-based feedback sessions which will be discussed later in the chapter.

Second, the previous success of the team may have influenced how they received and responded to video-based feedback sessions. The State University team was ranked tenth out of twelve teams during conference play the previous season and this may have played a significant role in providing the players with much needed confidence during the spring season.

These increases in self-efficacy were irrespective of the participants' perception of the opponents' ability level which they stated affected their self-efficacy, anxiety level, and attention in a negative way during competition. There is a clear need to examine male/female and unsuccessful/successful football programs at the developmental level to determine if gender and success levels affect the psychology of the players and to what extent viewing performance accomplishments influence performance.

The concept of self-efficacy can be used to explain why viewing past individual and team successes had a positive psychological effect on the players. Bandura (1986) stated enactive attainment refers to prior achievements and is considered to be the most influencing source of self-efficacy information. In this instance the participants were more confident in repeating successful performances because of the pride and sense of accomplishment they experienced while viewing previous successes. In addition, the

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progress seen on video acted as reinforcement to the players and motivated them to repeat those actions.

Third, the participants stated knowing their training sessions and games were recorded affected their motivation and subsequent work rate. The participants explained they continued to work hard in training even if the coaches were absent because they didn't want to be criticized by coaches if they reviewed the film later on. The recording of training sessions has been documented in elite youth football as a way to provide feedback during the coaching process (Groom et al., 2011). However, the use of a video camera to control players' effort levels in training has not been documented as a potential use to motivate players. This finding extends the existing PA literature base given that PA research has failed to acknowledge the influence the recording of training and competition can have on football players, and in particular developmental players, while the coaching staff was absent.

Here the concept of promised punishment can be used to explain why the players were motivated to work hard even when the coaches were absent from the session (Bandura, 1986). Knowing the coaches would review the training session later on motivated the players not to make any mistakes (low effort) and to avoid any possible future punishment.

Additionally, the players explained they worked harder because they felt the video camera was similar to having more fans (and coaches), at the games. This finding is in line with Bandura (1986) who suggested a promised incentive (more fans to play in front of) could act as a motivator. This is a new finding and suggests the players were conscious of who was watching them perform, either in training or at games.

Research Question 2

        The present study revealed one theme regarding the factors, other than video, which had a negative influence on the players' ability to implement coaching points received during video-based feedback sessions. This was barriers to implementing coaching points.

        The present study supports previous research found in the sports coaching literature which contends the coaching process in football is a complex and social endeavor. The participants explained there were several barriers to their learning and subsequent implementation of coaching points received during video-based feedback sessions. The players explained injuries to teammates led to a low number of players being available for training and this rendered the training sessions unrealistic to the game. Also, the timing of some training sessions in relation to video-based feedback sessions had a negative impact on their ability to carry out coaching points in competition. The players acknowledged they were more likely to think about and remember coaching points if training sessions quickly followed video reviews, especially when reviewing opponents' set piece plays and attacking style.

        This finding is consistent with the general PA literature which proposed training sessions should quickly follow video-based feedback to optimize learning (Groom et al., 2011) and coaching is a process replete with problems (Cushion et al., 2003, 2006; Potrac, Brewer, Jones, Armour, & Hoff, 2000), and incorrectly assumes coaches have all the necessary resources to act effectively (Jones & Wallace, 2005). In fact Cushion (2007) suggested coaching includes various contextual and situational factors which influence coaching decisions (Lyle, 2002b).

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The present study extends previous research found in the PA literature in one important way. Data collected from the participants suggested the complexities of the coaching process can be equally applied to intercollegiate sports, and in particular developmental football. The players explained their busy schedules with commitment to both academics and football took a toll on their performances in training and competition. Their lack of focus seemed to coincide with their return from spring break where a relaxed attitude and more academic work from professors affected their attention to football. Life as a student-athlete seemed to be quite a challenge for the players where the academic workload and pressures to achieve high grades were stressful. Also, the looming summer break appeared to contribute to this lack of focus.

This finding is important, given that the sports coaching literature has revealed the complex and social nature of sports coaching (Bowes & Jones, 2006; Cushion et al., 2006; Jones & Wallace, 2005; Potrac et al., 2000) and the myriad of issues facing sports coaches on a daily basis (Potrac et al., 2007). This sentiment has been extended to semi-professional (Potrac & Jones, 2009) and professional football (Cushion & Jones, 2006; Jones et al., 2002; 2003; Potrac et al., 2002) but has failed to acknowledge the complex nature of the coaching process at a developmental level (collegiate). This has clear implications for coaches at the collegiate level who coach and deliver video-based feedback sessions on a daily basis.

The present study expands previous research found in the wider PA literature in one important way. No single theory has been used to explain the use of video-based feedback sessions in the coaching process. Nelson et al. (2011) included theories and theorists from psychology (Piaget, Vygotsky, Bandura, Illeris), and sociology (Darwall,

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Hudson) to explain the perceptions of a semi-professional male elite ice-hockey player who received video-based feedback as part of the coaching process. Other research has focused solely on a coach's use of performance accomplishments and vicarious experiences when citing Bandura (Groom et al., 2011). Since coaching could benefit from a multi-disciplinary approach (Lyle, 2002) and PA is now a firm part of the coaching process, the findings with regards to the attention and retention stages of learning from this study could be considered and applied all sports coaches in future, especially when using video feedback as part of the coaching process.

Finally, given that the present study is the first to examine the perception and influence of video-based feedback sessions on female college football players, future research is needed. A decline in the cost of this form of educational technology is expected which could lead to an increase in the use of video-based PA in sports, especially at the intercollegiate level. Further research is warranted, given that Title IX; a federal law which prohibits no person on the basis of sex, be excluded from the benefits of any education program receiving federal financial assistance is adhered to by intercollegiate athletics sports departments around the U.S.

Limitations of the Study

Before offering conclusions and recommendations for future research the limitations of the study must be considered. The study is limited to four areas: (a) A single university located in the southeast United States, (b) A multiple case study design taken from a NCAA Division 1 women's football team, (c) A single spring semester, and (d) Single researcher also acting as an assistant women's football coach. This has limited the study in the following ways:

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1. Data collected can only be attributed to one university team with comparable characteristics located in the southeast United States. Therefore the findings may not transfer to different areas or universities in the U.S.

2. Data collected can only be attributed to one multiple case study consisting of five female college football players.

3. Data collected for this study was limited to one spring semester (2012). This time of year is a non-championship segment according to the NCAA. This meant only five competition days were allocated to the team and the players were afforded two days off training every week. Additionally, the senior players who had completed their four years of NCAA athletic eligibility were excluded from training and completion and allowed to focus on their academic studies. Overall, this reduced the number of potential participants to choose for the study and the amount of time the researcher had access to them during training and competition.

4. As a researcher, I was mindful that while working as the participant's football coach I may have received answers to questions which were not entirely truthful. The participants may have provided me with answers they thought I wanted to hear and likewise I may have shown bias toward the participant's responses and behavior.

Conclusions

The use of video-based feedback sessions by football coaches of all levels is expected to increase since the cost of instructional technology (software and hardware) continues to decrease (Liebermann & Franks, 2008). This decrease in the cost of educational technology should see a wider use and application of video-based PA in the coaching process. To date, there has been no research which has explored the influence of video-based feedback sessions with female collegiate football players, in the U.S., or anywhere else. Therefore, the purpose of the study was to understand how female college football players perceived and responded to video-based feedback sessions during their athletic training and competition.

Research Question 1

In regard to how female college football players described and explained the influence of video-based feedback sessions on their athletic learning, the study revealed two emerging issues. These issues were (a) learning (b) motivation.

In the area of learning, this study, through the data collection process, showed video-based feedback sessions increased the learning of female college football players by preparing them through opposition analysis review sessions, helped them understand the teams playing style and/or the roles and responsibilities within it by showing them personal and team areas for improvement; improving their learning of coaching points and by showing them their performances were different to what they thought during or following a performance. The following seven conclusions can be drawn from the data.

First, the players stated watching oppositional analysis reviews prepared them tactically for competition by informing them of their opponents' game plans and the individual tendencies of opponents who were likely to influence their decisions on the field. Knowing this information helped the players forge stronger playing relationships on the field and reduced their nervousness leading up to game time. Additionally, the oppositional analysis reviews helped them understand their roles and responsibilities within the team.

Second, the players stated receiving EPL review sessions helped them understand their teams playing style and their roles and responsibilities within the team. They achieved this by comparing the playing style and positioning of professional players during EPL review sessions to themselves. This comparison stimulated conversation between players to clarify what was required of them during competition.

Third, video-based feedback sessions allowed players to identify personal and team areas for improvement by re-living their mistakes and seeing the full picture as opposed to hearing about them. Personal areas for improvement included viewing individual kicking technique and poor decision making during competition. Team areas for improvement included seeing and comparing the compactness of the State University midfield to another College teams midfield.

Fourth, individualized PA review sessions provided an opportunity for players to pay more attention and remember coaching points compared to team review sessions by providing them with an interruption free, personalized and focused review. In this respect the players declared they were more likely to pay attention if the coaching points impacted them personally.

Fifth, the players used shortened sentences to remember tactical coaching points viewed on video. These shortened sentences included tactical decisions made by defender when deciding to make a run forward, a midfield player choosing when to switch the ball to the other side of the field and a goalkeeper remembering to stay higher up in her 18 yard box.

Sixth, the players used visual cues on the field to remember tactical coaching points viewed on video. These visual cues included a goalkeeper reflecting on conceding a goal and remembering what should have been done to prevent it and a defender using the body position of a teammate to make a decision to run forward.

Seventh, the actual performances viewed on video by the players contradicted what they thought during or following a performance. This reflection included players realizing they performed better than they thought which they attributed to either a focus

on the negative aspects of performance which stuck in their mind or the result of the game. The reflection also included players realizing they weren't as good as they thought which they attributed to either a focus on the positive aspects of performance which stuck in their mind or a denial that they performed poorly.

In the area of motivation, this study, through the data collection process, showed the players were motivated by viewing past individual or team successes, and by viewing other sports teams' successes on video. Also, receiving video-based feedback increased their effort and intensity levels. Finally, the use of negative video clips was recognized as potential causes of harm and should be balanced with positive clips. The following five conclusions can be drawn from the data.

First, watching previous individual and team successes on video increased the player's self-esteem and confidence, and provided inspiration and motivation to repeat what watched. These successes were shown in the form of team review sessions and motivational videos and had a positive psychological effect on both healthy and injured players.

Second, watching other sports teams had a motivational and positive psychological effect on the players. Watching similar college teams during team review sessions provided the players with good examples of how tactics could be successfully employed and this helped convince players who were skeptical of new tactics. Also, watching professional football players during video-based feedback sessions inspired and motivated the players to perform.

Third, the players increased their effort and intensity levels in response to watching video-based feedback sessions. The players were motivated to work harder

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when they watched their mistakes and/or saw improvements on video, and when they knew training sessions were recorded even though coaching staff was absent.

Fourth, the players believed positive and negative clips shown during video-based feedback sessions should be balanced out to avoid affecting the confidence of players. Although negative clips were important to show players how and why their mistakes occurred it was important to show players some positive clips to protect their confidence levels.

Fifth, the nature of this qualitative study brought up a unique case with one participant (Gail), who remained injured throughout the spring season. She stated video-based feedback sessions were an important source of motivation for her because they gave her something to hold on for, reminded her of the ability she had, helped her deal with the frustration of not being able to work on the areas for improvement highlighted by video and helped her feel as if she was still a major part of the team.

This finding is important, given that PA research has failed to address how injured football players, and in particular players at the developmental level, are integrated into video-based feedback sessions. This finding raises an important issue for coaches who have injured players and has clear implications for coaching and delivering video-based feedback sessions.

Research Question 2

In regard to factors, other than video, which had a negative influence on the implementation of coaching points viewed during video-based feedback sessions, the study revealed one emerging issue. This was the barriers the players faced when trying to implementing coaching points.

In the area of barriers to implementing coaching points, this study, through the data collection process, showed the female college football players experienced several barriers to both their learning of and implementation of coaching points received during video-based feedback sessions. The following four conclusions can be drawn from the data.

First, the players provided several examples of situational and contextual factors which impacted how they implemented the coaching points they receiving during video-based feedback sessions. Therefore, the complexities of the coaching process can be equally applied to female intercollegiate football in the U.S.

Second, the players explained injuries to teammates and the timing of video-based feedback sessions affected how well they learned and subsequently implemented coaching points.

Third, the players explained and provided several examples of how psychological factors affected how well they implemented coaching points on the field, which included cognitive anxiety and low self-efficacy.

Fourth, the players experienced an increase in self-efficacy while receiving video-based feedback sessions, but ironically low self-efficacy became a barrier when trying to carry out coaching points on the field.

Significance of the Present Study

This study contributed to several gaps in the PA literature as suggested by Mackenzie and Cushion (2012). First, it explored how female college football players used video-based feedback sessions to assist them in their learning. Second, it used qualitative research methods to help understand how and why football players perceive

and respond to video-based feedback sessions in football. Third, it has taken the first look at the influence of video-based feedback sessions on female football players in the coaching process. Lastly, it has brought more insight into the influence of video-based feedback sessions at an amateur level in football.

As suggested by Groom and Nelson (2012, p. 12), the use of qualitative data collection and analysis techniques was "an effective means of gaining insight into athletes' experiences, thoughts, and perceptions regarding their receiving of video-based feedback." These perceptions will now help football coaches begin to better understand how football players at the amateur developmental level respond to the use of video as part of their training and competition and inform them how to effectively deliver video-based feedback sessions to optimize learning.

The findings from this study have helped to partially solve the problem first posed at the beginning of the dissertation in two ways. First, the findings from this study will add to the sparse PA literature pertaining to how athletes perceive and respond to video-based feedback session in the coaching process; providing a first account of football players at the amateur developmental level. Second, this study offers a real insight into the use of PA in an applied setting and how players believed the use of video influenced their ability to learn and retain information.

I am confident this study will make a contribution to the current PA literature. However, I recommend football coaches and performance analysts should decide if their unique position closely resembles the circumstances found in this study. Only then should comparisons be cautiously drawn between themselves and this study.

Implications for Using Video-Based Feedback Sessions in the Coaching Process

The purpose of this study was to understand how female college football players

perceived and responded to video-based feedback sessions during their athletic training and

competition. The following implications for using video-based feedback sessions in the

coaching process are offered based on the findings of this research:

1. It would be beneficial for football coaches to consider using professional
    football players (live or recorded on video) to demonstrate a desired
    behavior, only if the coach and player believe they are capable of
    performing the action. The participants in this study suggested this was an
    effective way to learn new information and become more understanding of
    their role within the team.

2. It would be important for football coaches to consider offering
    individualized PA review sessions as part of their coaching practice to
    ensure all players give adequate attention to the coaching points deemed
    important by the coach. Furthermore, these reviews provided me (the
    coach) with an opportunity to spend some quality one-on-one time with
    each player. This contact time led to increased rapport with each player
    and valuable coaching points were made to each player who was fully
    focused. Other coaches may experience similar rapport if such an
    individualized approach is implemented.

3. The players in this study explained they used shortened sentences or visual
    cues on the field to help them remember coaching points they viewed on
    video. It is recommended coaches provide each player with a shortened
    version of detailed coaching points and/or a breakdown of visual cues to
    look for on the field; to help the players transfer learning from video to the
    field. Alternatively, the coach or team/club could offer the player with
    memory techniques as part of their training to help move information from
    their short term to long term memory.

4. It may be beneficial for football coaches to refrain from making major
    judgements or statements regarding individual and/or team performances
    until after the performance(s) have been reviewed on video; preferably
    following a period of time when the emotions of the game/result have had
    time to subside. More specifically, coaches could advise their players
    against dwelling on perceived mistakes from a performance until after
    they have had a chance to review film.

5. It is advised football coaches use video-based feedback sessions to boost the self-esteem of individual players of all positions and the overall confidence of the team. These video-based review sessions could be carried out to provide players with a timely boost in confidence and/or as a way to motivate the team prior to competition. This increase in confidence could be achieved by showing edited video clips of the players and/or team competing to a high standard; preferably making improvements over the course of the video review session.

6. The players in this study stated they increased their effort and intensity levels because they knew training sessions were recorded. Therefore, other coaches could benefit similarly by recording training practices with a camera which is visible to the players and make it clear to the players each training session, whether true or not, will be viewed and analysed by the coaching staff.

7. It is advised football coaches fully incorporate injured players into individual, unit and team video-based feedback sessions. By doing so, players may not feel excluded from the team and be fully informed of what will be expected of them upon their return. Including the injured player could provide a much needed source of motivation for both the rehabilitation and football training program.

8. It is recommended collegiate football coaches schedule the majority of training and games before spring break, to help ensure a more focused and attentive football team. Although this is not necessary to maximise individual and team improvements, it would provide their student-athletes with more time to devote to academics and ultimately a pursuit of their career goals.

9. Football coaches should consider the skill level of their players when delivering video-based feedback sessions. The players in this study suggested psychological factors such as cognitive anxiety and low self-efficacy negatively impacted their ability to carry out the coaching points they viewed during video-based feedback sessions. If coaches are delivering to lower skilled players, they should consider implementing a mental skills training program which includes anxiety management skills as part of a player's personal training and development program to help them implement coaching points received from video-based feedback sessions.

Recommendations for Future Research

The purpose of this study was to understand how female college football players perceived and responded to video-based feedback sessions during their athletic training and competition. The results of this study suggest the following areas of further research:

1. This study revealed amateur football players at the developmental level benefited from individualized PA reviews during the coaching process by providing them with an uninterrupted and focused PA review. In doing so, the players used shortened sentences to remember and apply the coaching points they received from video-based feedback sessions. Further qualitative research studies are needed to explore how this type of video-based PA and differentiation can lead to improvements in learning and performance. Studies could possibly track memory retention week by week through the use of journal entries and reflection.

2. Many colleges and universities in the US employ coaches to coach both the men's and women's football teams. An ethnographic study could be carried out with a college who delivers video-based feedback sessions to both football teams through the same coach. This study could "be beneficial in developing new knowledge and understanding" of how PA and its delivery to athletes impacts learning and performance (Mackenzie & Cushion, 2012, p. 19). This research could explore possible gender differences in the teaching and learning of players using video-based PA, techniques used by players to retain and apply coaching information and the motivational climate behind the learning-performance link.

3. A mixed method approach could be used to further explore how female amateur (college) football players perceive and respond to video-based feedback sessions within the coaching process. Using the same qualitative data collection techniques (semi-structured interviews, participant observation and diaries) used in this study and adding quantitative data collection techniques such as tracking Prozone data, a researcher would be able to develop a more coherent and rigorous understanding of the phenomena under investigation which would not be achievable by using either qualitative or quantitative research methods alone (Creswell & Garrett, 2008).

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APPENDIX A

CURRICULUM VITAE

Andrew C. Manners

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Sunderland SR4 8BW

Home - (0191) 5512034 Mobile - 07818367352

andymanners99@gmail.com

EDUCATION

Ph.D. Instructional Systems & Workforce Development

Mississippi State University, Mississippi State, MS, USA   August 2016

Dissertation: *Exploring the influence of video-based feedback sessions with a female college football team.*

Professional Graduate Certificate in Education (PGCE) in Post Compulsory Education and Training (PCET)

University of Sunderland, Sunderland, UK   2014

M.Ed in Health and Physical Education

Augusta State University, Augusta, GA, USA   2002

B.Sc in Health, Fitness, and Recreation Resources

George Mason University, Fairfax, VA, USA   1999

TEACHING & TRAINING EXPERIENCE

Professional Tutor in Sport   September 2014 -

Darlington College, Darlington, UK

Department of Sport and Tourism

- Programme Leader for Level 2 Sport teaching on a range of Level 1, 2, 3 and 5 sport

  courses.

Lecturer in Sport Studies (Protocol)   February – June 2014

City of Sunderland College, Sunderland, UK

Department of Sport and Tourism

- I planned, prepared and delivered 20 hours of teaching per week to full-time students;

  achieving high standards in student learning, completion rates and attainment levels.

- I undertook administrative and academic tasks such as designing lesson plans,

  schemes of work, student tracking/assessment, and other course related duties, to

  ensure effective delivery of the curriculum and accurate course planning.

- I provided cover for absent colleagues in line with college policy and procedures.

- Courses taught: Sports Development, Practical Individual Sports, Rules, regulations,

  and officiating in sports.

Student Teacher (PGCE placement)   October 2013 – February 2014

Newcastle College

Department of Sport and Leisure

- I spent five months under the mentorship of two lecturers (Keith Douglas and Douglas Hunter). I planned, delivered and evaluated lessons in BTEC sports nutrition and sport development units.

- I assisted students in their learning and attainment for about 4 hours a week.

Student Teacher (PGCE placement)   October 2013 – February 2014

Sunderland Association Football Club – Foundation of Light

Department of Lifelong Learning

- I spent five months under the mentorship of Paul Leach (Lifelong learning officer). I planned, delivered and evaluated lessons in practical sport, anatomy and physiology, effects of exercise on the body systems, fitness testing and training and was asked to lead a BTEC Level 1 in Sport and Active Leisure.

- I assisted students in their learning and attainment for about 8 hours a week.

Instructor   June 2010

Mississippi State University, Mississippi State, MS, USA

Division of Academic Outreach and Continuing Education

- I designed and implemented a week long curriculum for a Healthy Kids Sports Camp.

Lead Instructor   2007 – 2012

Mississippi Soccer Association, Flowood, MS, USA

- I taught several coaching education courses and clinics to community and club groups. I have delivered U6-U8, U10-U12 youth modules, and state level "D" coaching courses.

Student Development Assistant   2002 – 2005

Iowa Central Community College, Fort Dodge, IA, USA

- I was a member of the college admissions team. My duties included arranging and giving campus tours, providing information to prospective students, scheduling classes and advising the student body.

Instructor   2003 – 2005

Iowa Central Community College, Fort Dodge, IA, USA

- I taught sports conditioning and sports participation college courses.

Teaching Assistant   2001 – 2002

Augusta State University, Augusta, GA, USA

- I was a teaching assistant in the department of Kinesiology and Health Sciences.

- I assisted with the teaching of Well 1409 Swimming for Non-Swimmers.

Director of Intramural Sports   2000 – 2002

Augusta State University

- I organised and implemented intramural sport competition for the university student body. The sports included: soccer, basketball, baseball and table tennis.

- I was an activity coordinator for the Kid's University Camp.

COMPETITIVE PLAYING EXPERIENCE (Football)

- George Mason University: NCAA Division 1, USA,   1994-1997

- Sunderland Association Football Club: English Premiership,   1991-1994

- Watford Football Club: English Championship,   1989-1991

COACHING EXPERIENCE

Casual Coach   2013 - 2015

Sunderland Association Football Club – Foundation of Light

Delivery duties

- I work with groups of young people on coaching programmes and write age appropriate session plans.

- I deliver new programmes as identified by the foundation and this includes specialised holiday programmes.

Administration duties

- I contribute to the processes of forward planning, monitoring, and evaluation and develop working practices in-line with the Foundation's equal opportunities and child protection policies.

Development duties

- I help identify PR opportunities and case studies and maintain levels of business.

Assistant Women's Soccer Coach   2005 – 2012

<u>Mississippi State University, Mississippi State, MS</u>

- I was the recruiting coordinator. This included arranging and providing group tours, giving personal campus tours, identifying and recruiting potential student athletes

- I was the director of soccer camps and clinics. This included developing and evolving an age appropriate curriculum; implementing a state wide advertising campaign to promote camps; designing camp brochures; and managing over 20 coaches and volunteers annually.

- I was the coordinator of public relations. This included representing the soccer programme at many university run events; Special Olympics and Boy Scouts of America. I acted as a liaison to Starkville and the surrounding communities, traveling to smaller towns to promote and deliver coaching clinics, as well as hosting many recreation and youth teams during their visit to campus.

- I was the head performance analyst. I utilized the Prozone Matchviewer system to edit and present video clips for individual, team, oppositional, and end of season analysis.

- My other duties included: coordinating all team travel, arranging game schedules, purchasing equipment, compiling scouting reports, assisting in organizing, preparing and conducting team practices.

Consultant/Coach   2005 – 2009

<u>Starkville Soccer Association</u>

- I was the head coach for U12-U13 girls select teams.

- I assisted the club director with the creation of a select soccer program.

- I introduced and assisted with the delivery of the first TOPS (The Outreach Programme for Soccer) in Starkville, MS

- I provided advice and direction for the division I, II and III programs (500+ players).

Head Coach (Girls)   2004 – 2008

<u>Alabama Youth Soccer Association</u>

- I was the head coach for the Under 16 girls Olympic Development teams.

- The U16 team finished 3rd in the Region III ODP championships in 2006.

Head Coach (Men & Women)   2002 – 2005

<u>Iowa Central Community College, Fort Dodge, IA</u>

- I successfully coached two nationally ranked soccer teams (Men and Women). My duties included coaching, recruiting, and scheduling competition, arranging team travel, budget management, and purchasing equipment.

- I directed all soccer camps and clinics.

- I raised over $7,000 annually.

- My head coaching record was 59 wins, 15 losses, and 6 ties.

- Region 11 champions in 2003 (men and women)

Assistant Coach (Men & Women)

<u>Iowa Central Community College, Fort Dodge, IA</u>   1999, 2002

- I assisted with all aspects of managing two nationally ranked teams.

- In 2002 both teams reached the NJCAA Division 1 National tournament. The men finished 5th and women 7th.

VOLUNTEER POSITIONS

1st Team Football Coach

- Sunderland West End F.C – Sunderland, UK   2014 -

Teaching Assistant (1st Grade)   2011

- Sudduth Elementary School – Starkville, MS

Activity Coach   2010

- Designed With Love Child Christian Development Center – Starkville, MS

Physiotherapy Assistant   1998-1999

- Sunderland City Hospitals, Sunderland

Assistant Men's Soccer Coach   2000-2001

<u>Augusta State University</u>

- I was charged with all aspects of team training and game management.

RELATED TEACHING AND COACHING POSITIONS

- Texas Soccer Club – Challenge, Houston, TX: Camp Coach,

  2005

- Fort Dodge Senior High, Fort Dodge, IA: Varsity Boys Coach,   2003-2004

- Iowa Central Community College, Fort Dodge, IA: Tutor,   1999

- Arsenal Gunners Soccer Club, Augusta, GA: Coach (U10, U15 boys)   2000-02

- Durham County F.A, UK – English F.A Mini Soccer Festival Coach,   2000

- Fort Dodge Senior High, Fort Dodge, IA: Varsity Girls Coach,   1999

- Gordon Bradley Soccer Camp, Fairfax, VA: Soccer Coach,   1995-1999

COMPUTER/TECHNICAL SKILLS

- Microsoft Office 2010

- InDesign CS6.5

- MovieMaker

- CamStudio

- Adobe Flash CS6

- Adobe Photoshop CS6

- Adobe Dreamweaver CS6

- Prozone Matchviewer

ACADEMIC HONORS AND AWARDS

- Recipient, Graduate Assistantship Award, Augusta State University, 2000-02

- Graduated Cum Laude, George Mason University, 1999

PRESENTATIONS

- Is Cherry Knowle Hospital an Accessible Environment?

  Senior Internship, Sunderland City Hospitals, Sunderland. 1998

- HIV and STD Prevention Strategies

  Senior Seminar, George Mason University, Fairfax, VA, USA 1997

TRAINING MANUALS

- I designed several programme manuals and camp brochures. These included a

  program philosophy, individual training program manual and several camp brochures

  for Mississippi State University soccer programme. 2005-2012

PROFESSIONAL DEVELOPMENT AND QUALIFICATIONS

Performance Analysis

- Level 5 Performance Analyst – (International Society of Performance Analysis of Sport   August 2012 - December 2013

Coaching

- FA Youth Award   February 2016

- FA Youth Module 3   October 2013

- FA Youth Module 2   May 2013

- FA Youth Module 1   November 2012

- United States Soccer Federation National Youth License   December 2008

- USSF 'B' license   June 2006

- National Soccer Coaches Association of America Goalkeeping License   2004

- UEFA B License Part 1   July 2002

- English Coaching Certificate/Level 2   January 2001

FA Learning Online Courses

- FA Learning - Equality and Diversity   December 2010

- FA Learning - Player and Match Analysis   March 2009

- FA Learning - Laws of the game   December 2008

- FA Learning - Child Protection   July 2007

- FA Learning - Disciplinary   July 2007

- FA Learning - Futsal Laws of the game   July 2007

- FA Learning - Soccer Camp Coaches Course   May 2006

Teaching & Coaching Workshops Attended

- Flipped Classroom (Darlington College)   2014

- Interactive Board (Darlington College)   2014

- Safeguarding (Darlington College)   2014

- Equality and Diversity (Darlington College)   2014

- Emergency Aid (Durham FA)   2012

- Safeguarding Children (Durham FA)   2012

- Photoshop 2 Photo Effects (Mississippi State University)   2012

- EBSCO Discovery   (Mississippi State University)   2010

- Powerful PowerPoint (Mississippi State University)   2010

Conference Attended

- Managing Classroom Behavior for Inclusive learning and tackling Prejudice and Harassment – University of Sunderland   January 14th 2014

- West Scottish F.A - Coach Development Day   June 27th 2009

- East Scottish F.A - Coach Development Day   June 28th 2009

- County Durham Sport - Coaches Conference   July 4th - 5th 2009

PROFESSIONAL AFFILIATIONS AND MEMBERSHIPS

- Institute for Learning (IfL) - AJ003194   2014 - Present

- Association of Teachers and Lecturers   2013 –

- University and College Union   2013 –

- FA Licensed Coaches Club   2012 –

- Member, British Association of Sport and Exercise Sciences   2012 -

- Member, Professional Footballers Association (PFA)   1992 –

- International Society for Performance Analysis in Sport   2012 – 2013

APPENDIX B

STATE UNIVERSITY PLAYING SEASON 2011-2012

PLAYING SEASON - WOMEN'S SOCCER

Length of Playing Season - An institution's playing season shall be limited to 132 days, which may consist of two segments (each consisting of consecutive days) and may exclude only required off days per 17.1.6.4 and official vacation, holiday and final examination periods during which no practice or competition shall occur.

Preseason Practice - Preseason practice may commence on the date that permits a maximum of 21 units prior to the first scheduled intercollegiate contest.

First Date of Competition - The Friday prior to the 12th weekend prior to the start of the NCAA Division I Women's Soccer Championship (August 19, 2011), except that an alumni contest may be played the previous weekend. (See Bylaw 17.19.3.1 for scrimmage/exhibition games exception.)
Conclusion of Season - The last date of final exams for the regular academic year at the institution.

Maximum Contests - An institution shall limit its total playing schedule with outside competition to 20 contests during the segment in which the NCAA championship is conducted & five dates of competition during another segment (travel to competition in the nonchampionship segments shall be restricted to ground transportation, unless there are no Division I institutions located within 400 miles of the institution, and except once every four years, an institution may use any form of transportation for travel to Hawaii or Alaska for nonchampionship segment competition against an active member institution located in Hawaii or Alaska), subject to the following exemptions:

A.	One Conference Championship;
B.	Conference Playoff;
C.	NCAA Championship;
D.	NCAA Championship Play-In Competition;
E.	One Contest or Date Against an Alumni Team;
F.	One Contest or Date with a Foreign Opponent in the U.S.;
G.	Any soccer games played in Hawaii or Alaska, respectively, against an active Division I member institution located in Hawaii or Alaska, by a member located outside the area in question;;
H.	Fund-Raising Activity in Which More than One of the Institution's Athletics Teams Participate;
I.	Celebrity Sports Activity (limit of two student-athletes involved in the activity);
J.	One Contest or Day of Competition Against the U.S. National Team; and
K.	Foreign Tour, Provided it Only Occurs Once in a Four-Year Period.

Please provide the information requested below & attach a copy of schedule and calendar to this form.

Institution ___Mississippi State University___ **Coach** ___Neil MacDonald___

Length of Playing Season: A maximum of 132 days.
From: ___August 6, 2011___ To ___October 28, 2011___
From: ___February 6, 2012___ To ___April 21, 2012___

Designated Week: (e.g., Sunday to Saturday)	Sunday to Saturday
Date Classes Begin	August 17, 2011
Date Practice Begins	August 6, 2011
Date of First Competition	August 21,2011
Date of Last Competition	October 28, 2011
Number of Dates – Championship Segment	20
Number of Contests – Non-Championship Segment	5

Sport: Soccer   <u>**2011-2012 Practice and Playing Season Form**</u>

August-11

S	M	T	W	T	F	S
	1	2	3	4	5	**1**
2 **7**	3 **8**	4 **9**	**5** 10	**6** 11	7 12	**8** 13
9 14	10 15	11 16	CB 17	12 18	13 19	**14** 20
21	15 22	**16** 23	17 24	18 25	19 26	**20** 27
28	21 29	22 30	23 31			

September-11

S	M	T	W	T	F	S
				24 1	**25** 2	**26** 3
4	**27** H 5	**28** 6	**29** 7	**30** 8	**31** 9	**32** 10
11	**33** 12	**34** 13	**35** 14	**36** 15	**37** 16	**38** 17
18	**39** 19	**40** 20	**41** 21	**42** 22	**43** 23	**44** 24
25	**45** 26	**46** 27	**47** 28	**48** 29	**49** 30	

October-11

S	M	T	W	T	F	S
						50 1
2	**51** 3	**52** 4	**53** 5	**54** 6	**55** 7	**56** 8
9	**57** 10	**58** 11	**59** 12	**60** 13	**61** 14	**62** 15
16	**63** 17	**64** 18	**65** 19	**66** 20	**67** 21	**68** 22
23	**69** 24	**70** 25	**71** 26	**72** 27	**73** 28	29
30	31					

November-11

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	H 21	H 22	H 23	H 24	H 25	26
27	28	29	30			

December-11

S	M	T	W	T	F	S
				1	2	3
4	F 5	F 6	F 7	F 8	F 9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

January-12

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	CB 9	10	11	12	13	14
15	H 16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February-12

S	M	T	W	T	F	S
			1	2	3	4
5	**75** 6	**76** 7	**77** 8	**78** 9	**79** 10	**80** 11
12	**81** 13	**82** 14	**83** 15	**84** 16	**85** 17	**86** 18
19	**87** 20	**88** 21	**89** 22	**90** 23	**91** 24	**92** 25
26	**93** 27	**94** 28	**95** 29			

March-12

S	M	T	W	T	F	S
				96 1	**97** 2	**98** 3
4	**99** 5	**100** 6	**101** 7	**102** 8	**103** 9	10
11	H 12	H 13	H 14	H 15	H 16	17
18	**104** 19	**105** 20	**106** 21	**107** 22	**108** 23	**109** 24
25	**110** 26	**111** 27	**112** 28	**113** 29	**114** 30	**115** 31

April-12

S	M	T	W	T	F	S
1	**116** 2	**117** 3	**118** 4	**119** 5	H 6	**120** 7
8	**121** 9	**122** 10	**123** 11	**124** 12	**125** 13	**126** 14
15	**127** 16	**128** 17	**129** 18	**130** 19	**131** 20	**132** 21
22	23	24	25	26	27	28
29	F 30					

May-12

S	M	T	W	T	F	S
		F 1	F 2	F 3	F 4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

CB = Classes Begin
H = Holiday
F = Finals

<u>132 days</u>

Championship: 73

Non-Championship: <u>58</u>

131

295

APPENDIX C

OBJECTIVE ANALYSIS OF THE FALL 2011 PLAYING SEASON

Table 5 - *Objective analysis of passes and possession during the fall 2011 soccer season*

	Non-conference			SEC Conference										
Opponent	Samford	UC Irvine	Troy	LSU	Arkansas	Alabama	Auburn	Georgia	UT	USC	Florida	Kentucky	Vanderbilt	Ole Miss
Date	15/08/2011	28/08/2011	16/09/2011	23/09/2011	25/09/2011	30/09/2011	02/10/2011	07/10/2011	09/10/2011	14/10/2011	16/10/2011	20/10/2011	23/10/2011	28/10/2011
Passes Attempted	297	152	376	271	230	260	195	202	208	231	181	174	174	189
Passes Completed	192	80	265	170	129	140	103	105	113	119	102	106	94	98
% of Passes Completed	64.6	52.6	70.5	62.7	56.1	53.8	52.8	52	54.3	51.5	56.4	60.9	54	51.9
% Possession in the Game	48.9	40.3	54.7	37.2	49	47.3	44.6	40.7	45.6	47.8	38.2	47.9	45.4	44.8

APPENDIX D

PERMISSION FROM STATE UNIVERSITY ATHLETIC COMPLIANCE

DEPARTMENT

December 16, 2011

To Whom It May Concern,

Please accept this letter as confirmation that Andy Manners has consulted with our office concerning his upcoming research that will involve current student-athletes. We have discussed our concerns and have no doubt he understands and will comply with all NCAA, SEC, and Mississippi State Athletic Department rules and regulations. If you should have any further questions please do not hesitate to contact our office at 662-325-5891.

Sincerely,

Steven Smith
Compliance Coordinator
Mississippi State University
662-325-8731

MISSISSIPPI STATE

APPENDIX E

PERMISSION FROM INSTITUTIONAL REVIEW BOARD

January 26, 2012

Andrew Manners
Mailstop 9851

RE: IRB Study #12-010: Exploring the Influences of performance Analysis Software on Individual and Team Motivation With a Female College Football Team

Dear Mr. Manners:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 1/26/2012 in accordance with 45 CFR 46.101(b)(1). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these effo! Rts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at http://www.orc.msstate.edu/human/aahrpp.php. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. Your stamped consent form will be attached in a separate email. You must use copies of the stamped consent form for obtaining consent from participants.

Please refer to your IRB number (#12-010) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at cwilliams@research.msstate.edu or call 662-325-5220.
Sincerely,
Christine Williams, CIP
IRB Compliance Administrator
cc: Dwight Hare (! Advisor)

APPENDIX F

CONVERSATION WITH THE TEAM

Conversation with the team

This semester I would like to conduct research with about 9-10 of you guys. The research is centered on our use of the Prozone Matchviewer software (Fall 2011) as well as other forms of video-based performance analysis (EPL, recorded training sessions). In particular I would like to see how and why this technology influences individual and team motivation.

Every player who participated in the fall 2011 season will be ranked based on qualifying criteria. The criteria include the amount of playing time captured by the Prozone Matchviewer software program, the position you play, and your remaining eligibility and/or current school year. The purpose of having these criteria is so I can gather a well-rounded view of the influence this technology has. Ideally, I would like to choose freshmen, sophomores, juniors, goalkeepers, defenders, midfielders, and attackers.

The research will involve reviewing EPL games, training sessions and your individual performances captured by Prozone. In addition there will be 2-3 interviews, conversations and observations made throughout the semester.

If you choose to accept my request there are a few things you need to know.

Firstly, full confidentiality will be given. Any information collected will be kept locked in my office. This may be in the form of written materials, journals, tape recordings of

interviews; held either on my laptop or on my flash drive. Additionally, when it comes to reporting my analysis I will use pseudonyms to protect your identity.

Secondly, there are no incorrect answers when responding to my questions. Please be open and honest.

Lastly, at anytime you can opt out of a part, or the whole research process. Please remember our athletic department have counselors available to you. If you ever feel the need to speak to a counselor we will put you in touch with one.

Tonight I will be sending an e-mail to those who fit the criteria mentioned. Please follow the directions in the e-mail if you wish to participate. If you choose to reject my request please don't feel bad. That is ok. Your rejection will have no bearing on your place on this team or future team selections. Dr. Kroger has kindly agreed to collect the consent forms.

APPENDIX G

EMAIL RECRUITMENT LETTER

Email recruitment letter

I mentioned in our team meeting that I wish to conduct research this spring semester. This research will be going toward the completion of my dissertation. Essentially I will be exploring the influence of performance analysis software and other forms of video-based analysis on Individual and team motivation.

The selection criteria for choosing my sample included: the amount of playing time captured by Prozone, playing position, and the years of eligibility remaining and/or school year. Essentially, I would like to choose a sample that covers these criteria.

After reviewing these criteria I would like to ask you to participate in my research study. Please understand that your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you choose to accept you may discontinue your participation at any time without penalty or loss of benefits.

If you accept this request please print and complete the informed consent form and hand it to Dr. Robert Kroger within five days of receipt of this e-mail. If you need to contact Dr. Kroger you can reach him at:

Robert Kröger

Assistant Professor, Aquatic Sciences

Work Phone: 662-325-4731

Cell Phone: 662-801-5114

Email: rkroger@cfr.msstate.edu

Thompson Hall, Room 223

Department of Wildlife, Fisheries and Aquaculture

Box 9690

Mississippi State, MS 39762-9690

If you have any questions please contact me below at:

Andrew Manners

Doctoral Candidate

662-418-7694

amanners@athletics.msstate.edu

APPENDIX H

STATE UNIVERSITY FOOTBALL LOCKER ROOM

APPENDIX I

HANDOUT TO ASSIST GAME PREPARATION

How to Beat Samford: (4-3-3)

Samford as a team:

- They look to pass/possess
- They are disciplined and hardworking
- LB and RB will release
- They play off their front 3.....midfield will get underneath to support
- They transition well to offense and defense
- No individual players of note.

How we need to defend:

Front 3: CFWD sets the line. If she presses we all press. If not, set the line at the top of the Center circle. Outside FWDs press the play outside and down the line.

MID 3: Get touch tight and make tackles. When forwards press be ready to step in front to win the ball.

Back 4: Talk and organize the back line. When do we step up/out? When do we hold a line? When do we need to drop? Don't allow the game to get stretched out. 40 yards max between Front line and back line. Push wide players wide and stay on your feet. Get touch tight in our 18.

How we need to attack:

As a team play quickly. One and two touch. Possess the ball and keep it moving. Switch it. Take quick free kicks.

Front 3: CFW push up onto back line and occupy the CB's. The front 3 should always be looking to receive the ball to feet. Check, show and ask for it. Once you lay a ball off spin at speed to get in behind. Take players on in the final 1/3.

MID 3: Be available to receive the ball in the seams. Can you receive it beyond your mark and run at the opposition. Look for the switch and our LB and RB.

Back 4: Be confident to pass it and dribble it out of the back. Switch the field quickly. LB and RB should try and get forward as much as possible. Be available for the weak-side switch. If under pressure release ball to fwds or clear your line.

APPENDIX J

INDIVIDUAL STATISTICS FROM FALL 2011 SEASON

prozone Player Ratings Breakdown: MSU

Mississippi State University Women	1st ATT	1st DEF	1st DIST	2nd ATT	2nd DEF	2nd DIST	Match ATT	Match DEF	Match DIST
M Tarah Henderson	25	12	0	6	17	1	31	29	1
M Lauren Morgan	7	51	-5	24	77	-13	31	128	-18
M Dana Forbes	41	37	-4	12	34	4	53	71	0
M Madison Mckee	22	60	4	7	26	7	29	86	11
M Amy Hoover	2	1	3	6	-1	0	8	0	3
D Morganne Grimes	25	79	9	4	37	-5	29	116	4
D Serena Prendergast	22	97	-10	7	45	7	29	142	-3
D Shannen Jainudeen	24	95	-8	7	82	9	31	177	1
D Julie Waddle	6	36	-10	2	10	0	8	46	-10
D Olivia Drapes	2	32	-4	12	53	-3	14	85	-7
A Elisabeth Sullivan	59	31	9	54	13	-5	113	44	4
A Jasmine Simmons	73	24	1	29	9	13	102	33	14
A Taylor Turnipseed	0	0	0	1	0	0	1	0	0
Average	**24**	**43**	**-1**	**13**	**31**	**1**	**37**	**74**	**0**
M Zehra Syed	0	0	0	2	8	-1	2	8	-1
A Katy Hoover	0	0	0	0	0	0	0	0	0

prozone ayer Ratings Breakdown: University of Alabama

University of Alabama Women	1st ATT	1st DEF	1st DIST	2nd ATT	2nd DEF	2nd DIST	Match ATT	Match DEF	Match DIST
M Josie Rix	20	64	22	21	18	-1	41	82	21
M Kaitlyn Smith	24	51	10	23	29	10	47	80	20
M Theresa Diederich	76	26	-1	22	5	-4	98	31	-5
M Molly Atherton	29	9	15	41	-5	3	70	4	18
M Shannon Lathrop	0	0	0	1	16	-3	1	16	-3
D K.K. Duffy	10	62	11	7	76	8	17	138	19
D Carly Mygrants	16	78	18	23	69	16	39	147	34
D Ashley Willis	18	34	-4	16	47	14	34	81	10
D Veronika Wolfkeil	6	90	14	11	74	20	17	164	34
A Kendall Khanna	48	12	-10	12	14	-7	60	26	-17
A Pia Rijsdijk	55	27	12	43	8	2	98	35	14
A Lindsey Sillers	7	0	0	0	0	0	7	0	0
A Kara Fasano	0	0	0	8	9	2	8	9	2
Average	**24**	**35**	**7**	**18**	**28**	**5**	**41**	**63**	**11**

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prozone — Player Ratings Summary: MSU

Mississippi State University Women		1st	1st/PM	2nd	2nd/PM	Match	Match/PM
D	Shannen Jainudeen	111	2.3	98	2.0	209	2.2
D	Serena Prendergast	109	2.3	59	1.2	168	1.7
A	Elisabeth Sullivan	99	2.1	62	1.3	161	1.7
D	Morganne Grimes	113	2.4	36	0.7	149	1.5
A	Jasmine Simmons	98	2.0	51	6.4	149	2.7
M	Lauren Morgan	53	1.1	88	1.8	141	1.5
M	Madison Mckee	86	1.8	40	0.8	126	1.3
M	Dana Forbes	74	1.5	50	1.1	124	1.4
D	Olivia Drapes	30	2.1	62	1.6	92	1.8
M	Tarah Henderson	37	1.1	24	0.6	61	0.8
D	Julie Waddle	32	0.9	12	1.2	44	1.0
M	Amy Hoover	6	0.4	5	1.0	11	0.6
A	Taylor Turnipseed	0	0.0	1	0.1	1	0.1
	Average	65	1.5	45	1.5	110	1.4

prozone — layer Ratings Summary: University of Alabama

University of Alabama Women		1st	1st/PM	2nd	2nd/PM	Match	Match/PM
D	Carly Mygrants	112	2.3	108	2.2	220	2.3
D	Veronika Wolfkeil	110	2.3	105	2.2	215	2.2
D	K.K. Duffy	83	1.7	91	1.9	174	1.8
A	Pia Rijsdijk	94	2.0	53	1.1	147	1.5
M	Kaitlyn Smith	85	1.8	62	2.0	147	1.9
M	Josie Rix	106	2.2	38	0.8	144	1.5
D	Ashley Willis	48	1.0	77	1.6	125	1.3
M	Theresa Diederich	101	2.1	23	0.7	124	1.6
M	Molly Atherton	53	1.1	39	0.8	92	1.0
A	Kendall Khanna	50	1.5	19	1.7	69	1.5
A	Kara Fasano	0	0.0	19	1.1	19	1.1
M	Shannon Lathrop	0	0.0	14	0.8	14	0.8
A	Lindsey Sillers	7	0.5	0	0.0	7	0.3
	Average	65	1.4	50	1.3	115	1.4

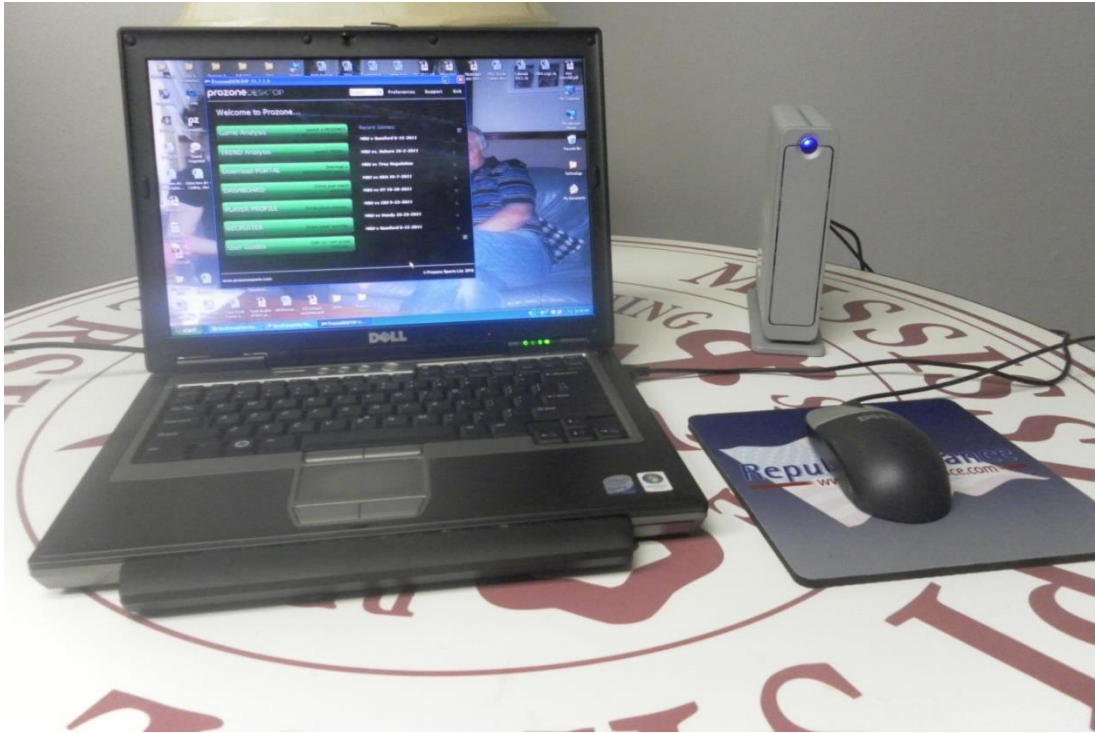APPENDIX K

PHOTO OF HEAD COACHES OFFICE SET-UP AND TECHNOLOGY

APPENDIX L

PHOTO OF RESEARCHER'S LAP-TOP

APPENDIX M

INTERVIEW PROTOCOL

Interview Schedule

Topics

Background

Previous experience with video-based feedback sessions

Thoughts and experiences with:

       Fall 2011 - Oppositional Analysis

       Fall 2011 - Motivational videos

Initial experiences with video-based feedback sessions this spring

       EPL

       Individualized PA Session

       Team Review

Expectations for the future using video based feedback sessions

Learning from video

Strengths and weaknesses of using video

Usefulness of video-based feedback sessions

       Reflecting on performance

       Timing from video-based feedback to practice/competition

       Coach's delivery

       Feedback

Change in thoughts, perception so far

Your motivation to play

Impact video has on your motivation

Role of video-based feedback in individual and team training

Player development

Review of the coaching points made from video. Anything else.

APPENDIX N

OBSERVATION OBJECTIVES

Observation Objectives

Physical effort in training

Trying new skills

Improving new skills

Elimination of behavior that was needed to improve performance

Communication with teammates that improves individual or team

Attempts to execute the coaching points discussed during the video-based feedback

sessions

Attempts to execute the coaching points discussed during training sessions

Discussions relating to the coaching points and team objective

APPENDIX O

EXAMPLE OF DETAILED FIELD NOTES

Date: Friday 30, March 2012

Time: 4pm

Venue: State Univeristy Football Field

I was the lead coach today. The players were wearing their rain jackets as it was raining heavy by the start of the session. I designed a relatively simple session to encourage Caroline, Ellen, and Brittany to dribble out of the back line to create passing opportunities and 1-2s. The field was set up with two big goals on each end and approximately 45 yards long and 30 yards wide. Two teams were set up which included one goalkeeper, two defenders, one midfield player, and one attacker. Team one included Allison, Caroline, Ellen, Madison, and Katie. Team two included CJ, Brittany, Brianna, Zehra, and faith. Cones were placed along the 18 yard and 37 yard line to create a field that was divided into three sections, with the middle section only 9 yards long. Several players were out injured today including Daisy, Gail, Hailey, and Irene. They either watched from inside the away dug out or participated in their rehab by running around the outside of the field.

The field was set out using the middle of the State University football field and the two teams were set up as follows:
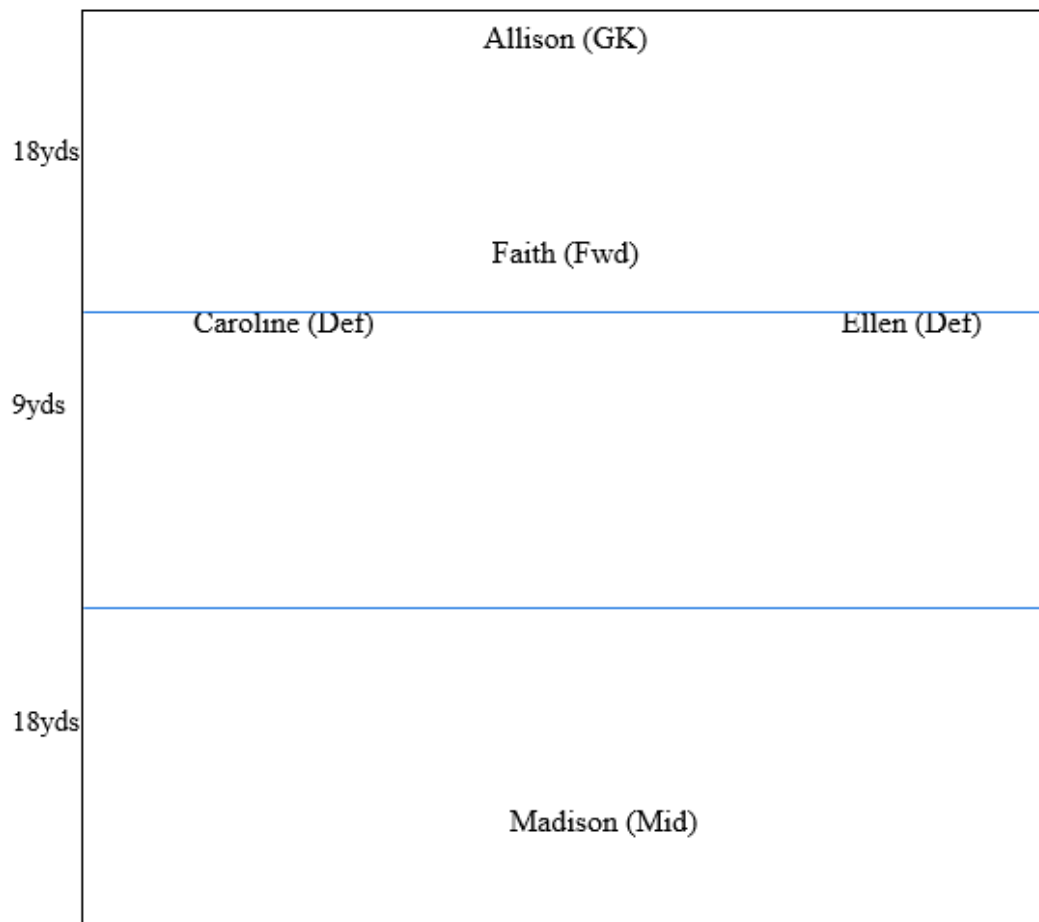
The teams were asked to pass and move around the field as a warm up. Both teams looked sluggish and disinterested. There was very little movement from both teams and I could tell they didn't want to be there.

The first condition on the game was players could only leave their designated zone by dribbling the ball forward and into the next zone or zones. Players could not leave their zone to chase a player who had dribbled into a new zone. As I observed from the side of the field I could see players failing to dribble the ball forward when the opportunity to do so was available. Faith played out of position as did very little defending as a forward player. This allowed Caroline and Ellen to dribble easily into the next zone but would often lose possession of the ball with a poor pass.

Madison was stationary sometimes, and this made it difficult for Caroline and Ellen to pass the ball to her. Brittany looked lively today but struggled to dribble out of her zone at zone and as a result was caught several times by Katie.

Ten minutes in I made some changes to the teams. Madison switched with Katie. Zehra switched with Faith. I changed the condition to players had to stay in their zones and passing was now the only option. Madison, Faith and Brittany put very little effort into the defensive side of their responsibilities and this made the game look unrealistic. Passes started to connect and the pace of the session got quicker at about 40 minutes in.

The final part of the session was to remove all restrictions and allow free play. The game became very lively and quicker. Players moved quicker off the ball but the defenders had mixed success with knowing when to pass and when to dribble. The rain continued to fall up until the end of the session.