

## CHAPTER 1

# The role of Performance Analysis in elite Netball competition structures.

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### 9.1 INTRODUCTION

Coaches at both the International and top domestic levels in Netball have turned to performance analysis to assist in their decision making and provide reliable and accurate information to inform their coaching process (Jenkins et al, 2007). The role of the performance analyst in this elite environment is to provide key objective information on performances which can be transformed into relevant feedback to facilitate learning and effect improvement. However, the coaching process and use of performance analysis to support the specific process, is affected by the characteristics of the competition. Thus it is important to highlight the differences and constraints which occur as a result of the competition structure and identify how the challenges created impact the performance analyst and coaching process.

This chapter will focus upon the experience of the author working as performance analyst with the Netball Scotland squad in two distinct competition structures namely the Netball Superleague and International Netball competitions. The Scotland squad competed as the Glasgow Wildcats within the Superleague, between 2008 and 2011, and compete as the Scottish Thistles in a range of International competitions. The Superleague comprised 16 matches played on consecutive weekends from January to May with some additional midweek, televised games. In comparison International competitions comprise multiple games over limited days. For example Test matches generally consist of 3 games over 3-6 days and International competitions such as the Commonwealth Games and World Netball Championships consist of 6 games over 6-8 days. The current chapter will describe the development of the Scottish Thistles/Glasgow Wildcats squads coaching process and the use of performance analysis within this process. This will lead into a detailed discussion of the interactive feedback process implemented within the Scottish squads and the challenges faced in this process by the varying structures of competition.

### 9.2 OVERVIEW OF THE COACHING PROCESS

Figure 9.1 provides an operational model of the coaching process adopted by the Scottish Netball Squads (Scottish Thistles and Glasgow Wildcats). It is based on experience, knowledge and empirical evidence from best practice at the highest

levels in Netball and other team sports. The core elements of the process are a cycle of events namely, perform, observe, analyse and train as suggested by current models (Cross and Lyle, 1999; Franks et al. 1983). However, evaluation takes place throughout this process at each stage as relevant information is obtained. The information which supports this core process is provided by the performance analysis conducted. Hence objective information from video and statistics informs the evaluation of the performance. The coaches' subjective views combined with this objective information identify the performance strengths and weaknesses and are subsequently used to plan the necessary interventions. These interventions can occur in training, and through interactive feedback. In contrast to popular models for the coaching process this model reflects not only the interactive nature of the feedback of information between the coach, analyst and athletes but also the continual nature of this feedback which is provided as and when required throughout the coaching process.

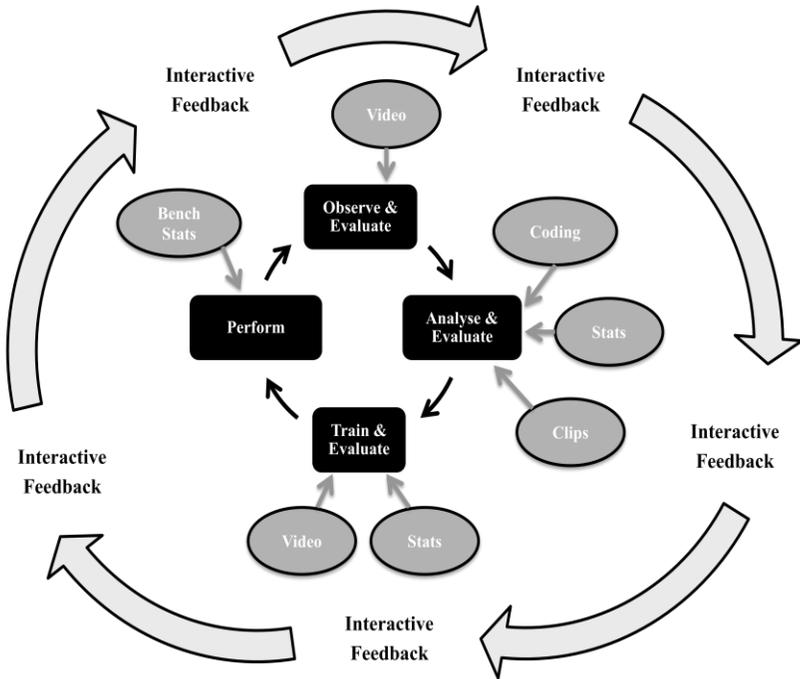


Figure 9.1 Operational model of the Coaching Process

### 9.3 INTERACTIVE FEEDBACK

The delivery of video-based performance analysis has been criticised as unstructured and reactive in nature with a focus on critical incidents (Groom et al. 2011). Thus to provide a structure to the process of feedback with the Scottish netball squads, a model of the interactive feedback process has additionally been

developed (See Figure 9.2). The feedback is driven by the process targets set prior to each performance, thus feedback is based upon whether the targets were achieved and the potential reasons for their achievement or non-achievement. Within this specific model the levels of feedback, divided into feedback within-match, post-match, analysis, train and pre-match, build upon each other to provide layers of information which are utilised to facilitate continued development and affect an improved performance.

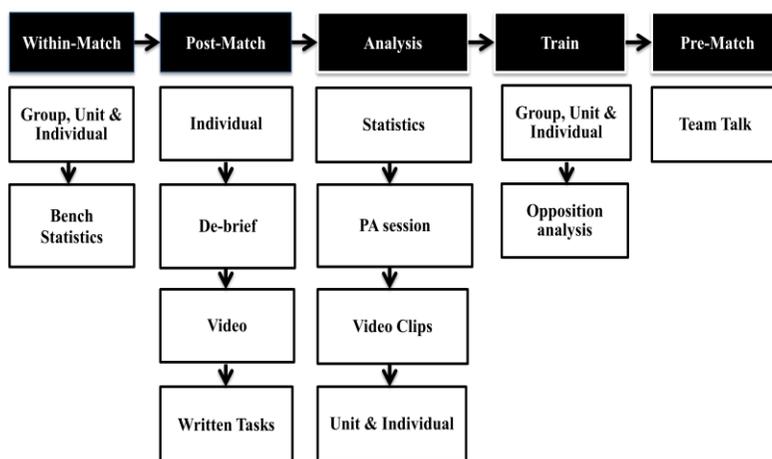


Figure 9.2: Model of the Interactive Feedback Process

### 9.3.1 Within-Match Feedback

Within the match itself interactive feedback occurs between the coaches and athletes. The aim is to assist the athletes in achieving their pre-match targets in response to the particular opposition’s abilities and strategies. The subjective views of the coaches are supported by the bench statistics which are the hand notated basic statistics recorded by the assistant coach and team manager. These statistics help the coaches’ decision-making within the game and can also be fed back to the athletes to provide the relevant evidence for necessary changes in behaviour. The accuracy of these bench statistics are ensured by the individual, experienced recorder before they are used within the match.

### 9.3.2 Post-Match Feedback

Directly after the match immediate individual feedback is provided by the coach to athletes who want to discuss elements of their performance. A whole squad de-brief session follows, usually within 1-2 hours of the match after the cool-down, shower and refuel, where initial reflections, of the coaches and athletes, on the performance and the achievement of the specific targets take place. Statistical evidence is presented to inform the discussions and help identify

strengths and weaknesses. Copies of the match are then provided on external hard drives and the coaches and athletes watch relevant parts or quarters directed by the de-brief discussions. The athletes are then required to complete individual written feedback tasks answering relevant questions about the performance.

### **9.3.3 Feedback from Performance Analysis**

The post-match feedback is subsequently combined with the quantitative performance analysis information of the key performance indicators and evaluated to determine the necessary interventions required. This evaluation then informs the content of the performance analysis session. The strengths and weaknesses in relation to the specific targets set are highlighted and relevant video clips are presented to the whole group. Subsequently specific unit and/or individual video clips are also viewed where required.

### **9.3.4 Feedback within training**

The combined post-match and performance analysis feedback then informs the training session(s) which focus on the elements of the game identified as requiring further work. Within these sessions further group, unit and individual interactive feedback takes place as the athletes work to develop the weaknesses in technical and /or tactical elements of their game. Additional video and statistical information can also be provided within this environment to further support this development. Within the training stage of the process an assessment by the coaches and athletes is additionally made of the next opponent's play. Key strengths and weaknesses are identified, with support of statistical and video evidence, and relevant strategies are determined and trained.

### **9.3.5 Pre-match Feedback**

Before the next performance a team talk takes place where the targets for the game and strategies against the specific opposition are reinforced. Video clips can be used within these sessions to show evidence of the squad's previous, positive performance highlights to enhance confidence and motivation for the match ahead. The team talk is planned to allow sufficient time for the athlete's to reflect on the game plan and their specific roles and allow discussion within the selected starting team and specific units.

A wealth of information is produced through the performance analysis process however it is the volume and when the information is delivered that determines whether performance improvements can be achieved (Hodges and Franks, 2008). Thus it is important to provide the correct amount of feedback at the appropriate time, but not too much to overwhelm the athlete or make them overly

dependent upon it (Hodges and Franks, 2008). A balance of positive and negative feedback is required to allow error correction while maintaining confidence and motivation (Dorricks, 1991). Understanding individual player needs and their preferred ways of learning are also important in ensuring an effective feedback process. However, the competition structures in which the Scottish squads perform provide challenges to this provision of feedback. Although there is flexibility to adapt and mould the Scottish squad's feedback process to the specific situation requirements, time restraints can cause significant challenge to the process.

#### **9.4 CHALLENGES CAUSED BY COMPETITION STRUCTURE**

The weekly match structure of the Netball Superleague means there is sufficient time to conduct full team and individual analyses of the key performance indicators during and directly after the performances. Full statistical information, video of the whole match and specific video clips of team, unit and individual play can be provided within a day of the performance. Provision of both team and individual statistical and video feedback provides information which can be used to inform improvements in team performance and individual athlete development plans simultaneously. The competition schedule affords sufficient time for reflection, review and evaluation by the coach, analyst and players, time to view relevant aspects of video footage and conduct feedback tasks prior to three focused training sessions. This allows time to work on weaknesses in play identified from the previous match and assess the upcoming opponent's strengths and weaknesses. The game plan can then be constructed and specific strategies trained in preparation. Occasionally the coach and/or athletes will request further statistical information or video clips to inform the coaches decision making, individual athlete learning and for confidence building and motivational purposes. The structure of this competition means there is time for such additional analysis to be conducted prior to the next game.

In contrast, the typical International competition structure of multiple games over a limited number of days significantly reduces the amount of time for the analyst to produce the necessary statistical results and video clips and for the feedback and training processes. A typical International schedule (e.g. Netball Europe) includes matches scheduled at 8pm, 4pm and 12pm on consecutive days with training sessions from 10am to 11am on the following mornings post matches 1 and 2. This leaves very limited time for the coding process so it becomes imperative to conduct real-time analysis. Consequently, to ensure quality of data collection the performance indicators which are coded are reduced to allow accurate feedback to be provided as quickly as possible. While additional coding can be conducted after the match typically the key team performance indicators are produced during the match and the individual statistics, produced during the Superleague competition, are provided at a later stage after the International competition. Thus during International competitions individual feedback is largely qualitative in nature and provided as and when required within the time allowed with specific athletes. Individual quantitative feedback is provided post competition.

The timing of the elements of the feedback process (Figure 9.2) is significantly challenged within the International competition structure. The minimal time between matches means that the process must be flexible but still ensure that the feedback provided optimises the athlete's performances. As identified by Gasston (2004) the feedback of performance analysis during international competitions must also fit around set meals and training times, physiotherapy treatments and sufficient rest. Thus finding time to watch the match video and provide written feedback after an 8pm match and before training at 10am the next morning can be difficult. In addition this specific timing means the performance analysis session, where specific video clips related to the statistical information are presented of the previous game, can only take place after the 10am training session. In this instance the match statistics are briefly fed back to the athletes at the start of the 1 hour training session so the team strengths and weaknesses and hence the focus of the training session is clear. With only 1 hour of training to concentrate on improving identified weak elements of play, and no training before the final match, the performance analysis session then becomes an important non-physical extension of the training process. However, there is still a distinct lack of time to attend to both the squad's necessary improvements and the strategies required for the next opponents. Getting this balance right is a major challenge in this competition environment. Thus every opportunity is taken to gain relevant feedback. Hence the athletes watch at least two quarters of their opponent's games during the competition with the remit of providing specific details on the opposition's play within the performance analysis sessions. In an attempt to overcome some of these issues in International competition the Scotland squad's coaches focus the provision of feedback on "what can we fix now?" and "what requires more time to fix?". An assessment is made by coaches and athletes as to which tools, skills and strategies they have which have been trained and can be immediately implemented to effect an improvement. Conversely, assessment of the skills and strategies which require additional training post competition is also made. The relevant "what can we fix" information then becomes the focus of subsequent feedback in International competition. Hence, the most relevant information which results in performance improvements is prioritised.

## **9.5 SUMMARY**

The diversity of the competition environments in which elite Netball squads perform require the specific coaching process and particularly the process of interactive feedback to be flexible and able to adapt to the environments challenges. In particular the time constraints afforded by International competition structures require prioritising the most essential performance indicators. Producing the statistical and video information as soon after the match as possible then provides the most relevant feedback at the appropriate times for performance enhancement. The models used by the Scottish squads continue to evolve through regular reviews to ensure they allow the flexibility to adapt and change to athletes needs and facilitate continued development in all environments.

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