A preliminary examination of the pre match agreement between analyst and coach of the definitions behind the KPI's in soccer.

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Introduction

The recent growth of Performance Analysis is due to the development of cheaper analysis systems and technology (Wright, Atkins & Jones, 2012) as well as the growing employment of performance analysts in professional soccer (James, 2006; Wright, Atkins & Jones, 2012). Video and computer technology is used by elite soccer coaches on a weekly basis to evaluate and manage the performance of individual players, the whole team or specific units within a team i.e. defensive unit (Groom & Cushion, 2004).

Video feedback used for tactical development has the absolute capability to be the component of performance analysis that provides the impartial data that informs and supports the coaching process, which is the stated purpose of performance analysis as a coaching tool (Brakenridge & Alderson, 1985). Tactical video analysis may take many forms including; post match team highlights and lowlights videos, opposition team and individual player videos, individual player positive / negative highlights movies and selection movies (O'Donoghue, 2006). The component parts of performance which make up such tactical video feedback are classed as Key Performance Indicators (KPI's) (Hughes & Bartlett, 2002).

The nature of video feedback means it is an extrinsic, terminal form of feedback provided once an action or period of activity such as a match is completed (Hodges & Franks, 2004). As such video feedback is a supplementary form of feedback that complements the information a soccer player receives from intrinsic, concurrent forms of feedback including feedback from their vision, proprioception and audio which is received during a soccer match (Hodges & Franks, 2004). Video feedback is therefore an example of augmented feedback (Schmidt, 1991) which can aid the learning and development of soccer players and aid soccer coaches within their coaching process to review performance and plan future performances (Carling, Williams & Reilly, 2005; Groom, Cushion & Nelson, 2011; Hodges & Franks 2002; Lyle, 2002; Stratton, Reilly, Williams & Richardson, 2004).

The aim of performance analysis is to provide the coach and eventually the player with the instruments and knowledge to develop optimal performance (Liebermann et al, 2002; Hughes & Franks, 1997). But whilst the Performance Analysis sector grows the question of validity is created through the element of human error in the coding process (O'Donoghue, 2007) and the interpretivist component of the coding process resulting in multiple versions of meanings KPI's.

Objectives

Post game video analysis through the observation of a DVD or video of the whole match is the most common form of analysis participated in by sports coaches (Wright, Atkins & Jones, 2012). Sports coaches also use formal game statistics, edited video and match reports to create a systematic approach to game analysis with the majority of coaches spending between 1 and 3 hours reviewing performance analysis data following every game (Wright, Atkins & Jones, 2012). KPI's are used to measure and compare performance and are the focus of edited tactical feedback videos. But do sports coaches and performance analysts participate in a joint process to identify and establish the definitions of KPI's pre match?

Research questions:

How are KPI's identified and defined by performance analysts? What involvement in the identification and defining of KPI's does a coach have? When are Key Performance Indicators identified and defined?

Method

The study was an open and explorative investigation into the identification and defining of key performance indicators by sports coaches and performance analysts.

Semi structured interviews were carried out with 7 full time performance analysts working in soccer in the Football League and National League. All Performance Analysts worked with the first teams at their clubs and were identified as the most senior Performance Analyst at their establishment.

Semi structured interviews were selected as a data collection method to allow individuals to discuss their own experiences in their own words with probing questions utilised to gain extended answers. Interviewees were encouraged to disclose thoughts and feelings that are private but that were prepared to be shared due to the more intimate nature of the interview as a data collection method (Gratton & Jones 2010).
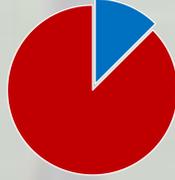
The interviews were transcribed and coded using critical thematic analysis and latent themes were identified to allow underlying ideas, assumptions and concepts to be identified (Braun & Clarke, 2006).
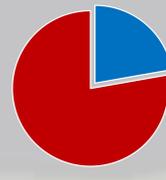
Results

0 Performance Analyst's outlined a clear, specific process to identify and define KPI's.

14% Performance Analyst's have written definitions of KPI's

71% PA's lead the process of identifying and defining KPI's

"There is not much communication between the management staff here. So like they can ask me for a presentation like 10 minutes before can you clip this out and it's like ... yeah cheers."

"I code as much as I can because you never know what they might ask for"

"Some (coding) is just off the cuff because football is unpredictable and you don't know how it's going to go"

"I would code what I would call key level stuff... see it log it"

Conclusions

A clear and specific process to identify and define the KPI's to be utilised for the aid of tactical feedback is not present between coach and performance analyst.

Coaches and performance analysts enter in to a relationship which has very fragile foundations in terms of what key components of a game of should be tracked and analysed.

Performance analysts rely upon intuition, prior knowledge of soccer and gut feeling to decide what is a KPI.

In order for performance analysis to be used to its fullest capacity, a process of agreement involving both the performance analyst and the coach must occur. This procedure needs to be done before any performance analysis takes place and be focussed on identifying and defining the KPI's to be recorded. Without such a process of agreement confusing and conflicting definitions of KPI's will be present leading to a limited impact of PA.

Recommendation's –

Coach / performance analyst meet to identify / define KPI 's → Written record kept of KPI's and definitions

Review / Refine KPI's and definitions

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