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# COACHES PERCEPTIONS OF THE USE OF VIDEO ANALYSIS: A CASE STUDY

RYAN GROOM and CHRIS CUSHION



Many Premiership football teams have adopted video based match analysis into their preparation for matches. Clubs such as Arsenal, Chelsea, Liverpool, and Manchester United have used match analysis systems to break down matches providing statistical information of both a *Physiological* and *Technical* nature. Historically, this information was created using hand notation, where statistical data would be collected on paper. However, the introduction of computer-based systems, where the statistical information is linked to the video, has signalled a conceptually different use of the analysis information. Namely, the information itself can be viewed directly by the players as a selection of video instances. This allows managers and coaching staff to use this information to provide feedback to the players regarding individual, unit and team performance in matches. This information may vary from *Physiological* information relating to sprint/walk/jog ratio data (see Strudwick & Reilly, 2001) to specific *Technical* and *Tactical* information for example, team shape, midfield pressure, and the use of diagonal balls. Also, elements of decision-making such as, the selection of passing and marking options and positional play can be highlighted. Typically, video analysis is often used to highlight strengths and weakness of players, thus attempting to reinforce behaviours using positive modelling.

Although the use of video may appear appealing to many coaches, little is known as to the effectiveness of this approach to training and match preparation. Often the assumption is made that if the players see what they are doing right or wrong, this will reinforce good or appropriate behaviour, also that the more information the players have the better. However, research from the mainstream motor learning literature has highlighted several key issues relating to the provision of feedback in learning. For example, Williams (1999) highlights ten aspects which can affect the effectiveness of feedback:

- Feedback should be constructive.
- Develop a model for comparison (Performance Goal).
- Feedback should relate to the players' skill level.
- Frequency should depend on the learners' skill level.
- Do not provide too much information.
- Do not provide feedback that is too precise.

- Provide feedback at the right time.
- Provide the learners with the opportunity to practise the skill.
- Try to provide positive rather than negative feedback.
- Provide some variety in the delivery of feedback.

Currently, there is a limited amount of research that supports the use of video-based coaching sessions. This is particularly surprising as modern pedagogy has highlighted the importance of "reflective practise" to consolidate and improve new coaching methods (see Knowles, Gilbourne, Borrie, & Nevill, 2001). Also, with advances in video and computer technology, there has been a reduction in the size and cost of cameras and laptop computers, which has enabled video feedback to be used as a tool for developing youth players and not solely a luxury for the 1st team. Therefore, the aim of this paper is to reflect upon the 2003/04 season using video analysis with an U17 team of 1st year scholars.

## Methodology

The participants in this study were two professional Advanced Licenced Youth coaches; both were ex-professional players and had over seven years of coaching experience. As no previous research has attempted to reflect on the coaches' perceptions of the use of video analysis, an exploratory qualitative methodology was employed to examine coaches' perceptions of the video analysis sessions carried out during the 2003/04 season. A semi-structured interview with the two coaches (C1 & C2) was used to identify key themes and trends across the participants.

The semi-structured interview consisted of questions relating to five key areas:

- (1) General usefulness of the video sessions (*Usefulness*).
- (2) What had been learnt in the sessions (*Learning*).
- (3) Whether the sessions had influenced their reflection on the matches (*Reflection*).

- (4) Whether the length of the session was right (*Timing*).
- (5) Whether the video sessions had had an impact on any mental aspects (*Mental Aspects*).

## Coaching Philosophy

Central to the construction and delivery of the video feedback sessions was the experience and philosophy of the coaches who identified the themes of the session: Technical/tactical content, how the information is delivered (timing/style), and the tone of the sessions (positive/negative). In the interview with the coaches a clear philosophy had developed, which was to try to create a positive learning experience for players, whilst providing them with the information they required to improve on previous team and individual performances:

"The first thing we said at the start is that we did not want it to be a negative thing (C2)."

"We've won games, quite comfortably, threes, fours, but we've always been able to come in on a Monday morning, and go well done in this area, but you could have improved on that, but I don't think it has been in a negative way, I think the balance has been right (C1)."

## Data Analysis Coaches Perceptions

### Usefulness

The coaches found that the video analysis sessions were useful for providing feedback on specific areas of the game that players often found hard to recall. This enabled the coaches to discuss decision-making:

"If someone's made a technical mistake on the ball, we can say this is what you did, a cross where instead they could have stood it up at the back post, which would have been the best option but then elected to whip it, we can stop and say look (C2)."

Also, the video provided the players with a view of the game that is often reserved for the coaches:

"We can talk about it but until they actually see it up on the board on the screen, then they don't know what we are saying, they can see it for themselves the mistakes that they are making, but they have also gained so much confidence seeing themselves up there doing well (C1)."

### Learning

The coaches perceived that the video sessions had been useful in improving players' game understanding. The main advantages the coaches highlighted using a video-based approach was that you could work on the players understanding of their positions in relation to the team both "on and off the ball":

"For me it's their positional sense, whereas we can do it out there on the training ground, which is a great starting point, but in games they've got to make decision really quickly, on a Monday morning you can say see the position you were in, and work with the team to get a bit more understanding (C1)."

The coaches also identified that the session had encouraged players to analyse the game and their own performance in a critical manner:

"It's a learning curve for them, it's probably the first time that they have had to sit down and maybe look at themselves (C1)."

### Technical Information

The coaches also perceived that the video analysis was particularly useful for highlighting technical information for the players. The video

enabled the coaches to highlight the players "in-game performances" relating to their decision-making skills and their roles and responsibilities within the team, for example:

- Technical mistakes on the ball.
- The selection of passing options.
- To highlight overplaying in certain areas of the field.
- Goals scored against us at set plays.
- Players caught wrong side.
- Positional play.
- Organisation.
- Defending at set pieces.
- Marking positions.

## Reflection

The next section highlights some of the main themes, concerned with how video analysis sessions have altered the coaches' own reflection on the previous game. In the initial video session both coaches reported that they were pleasantly surprised with both the team and individual performances, given the chance to review the game analytically using the video:

"We were better than we thought, the players are better individually and as a team, than I thought myself personally, in terms of what we have done with the video, we look more organised, using the video equipment they understand their jobs and roles, it can only help them as players really (C1)."

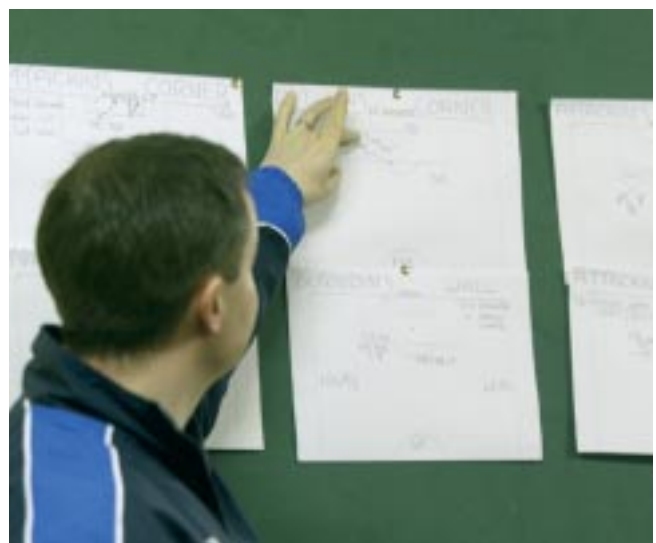
Importantly, the video analysis gave the coaches a chance to reflect on the match when the emotions from the game had passed:

"Sometimes I think that the players have performed better at times when you see them on the video than when you are actually there at the game (C2)."

The coaches perceived that the video had been particularly useful in highlighting action "off the ball" as sometimes the coaches were concentrating towards the "on the ball" play:

"Sometimes, because you think you've seen the game you think that you've seen everything, but then when you look back on the video you realise that, missed that, didn't know he did that, that was good or that was bad, sometimes you can see a reoccurring thing, where someone is making a constant mistake in a certain situation (C2)."

Also, because of the success the team had experienced in the filmed matches, the coaches were able to analyse where the success had



come from, and use this information to develop the team's playing style:

"We now have a style of play, where, and its come sort of through the video seen where how well we have done through a lot of pressurising, because we have seen it work, its really honed it down, that we did not really have at the start of the season, the style of play (C2)."

The coaches felt that on reflection, the use of video analysis with the players had given them an extra medium to express their coaching ideas through:

"It's certainly helped me in my development as a coach, I've never had that video equipment, but now we can do it, on a Monday morning to sit down with yourself and go through it's helped us as coaches ourselves (C1)."

## Timing

The coaches were asked to reflect on their perceptions of the timings of the video analysis sessions. Typically, the sessions consisted of a 30-40 minute debrief of the game. Video instances were selected to reflect key themes from the game, which the coaches had decided they wanted to highlight (eg pressuring, attacking play, defensive play, team shape, and goals). These video clips were then displayed by a projector onto a wall in their sections and the coaches would highlight key points and ask the players questions relating to their decision-making and examine alternative options:

"At times we were maybe long winded, at the end we had a fair idea of what you were going to show us, and we got quite hot on it (C2)."

The coaches both felt that as they became more comfortable with the use of the video session, that their efficiency improved:

"As the season went on it got better, at first for me we were going into the unknown, because I'd never done it before, and you know it's a learning curve for me, and as the season went on we got quicker and quicker and went crash, bang wallop, got the points and that was it, we moved on (C1)."

They also felt that the players experienced a similar learning curve to the introduction of video analysis sessions into their weekly training programme:

"The players got an understanding of it as well, the longer the season went on mentally if you like, when they were coming in for training, right were going to sit there and go through the video, for both parties really from the coaching point of view and the players (C1)."

## Mental Aspects

Two main themes came through the interview with the coaches, firstly, that they were able to give the players Technical Feedback relating to game performance and secondly, the positive impact both coaches felt that the video sessions had had on their players Confidence:

"Due to just how we have played especially in our home games it has improved their confidence on the video to see them winning games and scoring goals (C2)."

The coaches also felt that it was important for the players themselves to see how well they had performed, as in the past the coaches could only give the players this information using general praise. Both coaches felt that this was a particularly powerful way to build confidence in the team:

"The big thing is they have seen themselves being a success on the video (C2)."



## Summary

For the coaches, the video analysis had been a useful tool in the development of their players. Specifically, the coaches felt that the video feedback had improved four key areas of the players' development:

### Benefit for the Players

- Players Technical and Tactical Knowledge was improved.
- Critical Thinking was developed.
- Decision-Making was improved.
- Confidence was improved.

The coaches also felt that the video session had improved three key aspects of their own coaching practise:

### Benefit for the Coaches

- Assisted in the development of an effective style of play for the team.
- Enhanced their own professional development and coaching practice.
- Allowed for an in-depth review of matches.

### Further Reading

Knowles, Z, Gilbourne, D. Borrie, A. and Nevill, A. (2001). Developing the reflective sports coach: A study exploring the processes of reflective practice within a higher education coaching programme. *Reflective Practice*. Vol. 2, pp.185-207.

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