



The use of a Computer-Based Video Feedback System for Players Attempting to Improve Technique

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Introduction

siliconCOACH timeWARP is designed to be a simple interactive, skill-learning tool. The concept is simple; it provides rapid feedback to the player in an attempt to accelerate the process that is occurring when a player is learning or altering a skill. It also provides a common focus between coach and player as it addresses misunderstandings that can commonly occur between the players mental interpretation compared to the coaches verbal interpretation of the actual movement. Instead, they both can just watch what happened on the court!

It works by providing you with your own instant replay system, like you see on TV sports broadcasts. It allows the actions you have just recorded to be reviewed while you continue recording live. This presentation will focus on the practical applications of this computer based video feedback system in a coaching setting.

Methods

Over the last twelve months I have been using siliconCOACH timeWARP in my coaching business to help my players understand what they are actually doing when performing a skill as opposed to what they think, or 'feel' they are doing.

The system requires minimal equipment and set up. Located beside the court is a trolley with a laptop and a digital video camera on tripod. A ball machine for groundstrokes is used from the other end of the court with the remote controlling the ball machine placed next to the computer. Power is required on the court for the computer and ball machine. The camera and the trolley are able to be moved for correct filming positions depending on the camera angles needed, for example serving or ground strokes.

During a one-hour lesson, invariably I would take up to six players through the siliconCOACH timeWARP process. As an example, each player would serve approximately six balls. At the end of six balls that player would watch the replay, note any corrections and then return to serve. All six players would complete the instant replay at least four times in the hour.

Results and Discussion

I have seen dramatic improvements in the speed at which my players have been able to change and learn new movement sequences. In particular the system has proven to be very valuable in the initial stages of the learning process, allowing the players to 're-set' their body image and spatial awareness. I have found it much easier to progress them forward once their mental image of where they think they are in space represents where they actually are in space. However, the players do not have this feedback system when in a match and I believe it is necessary to reduce the external feedback as the players begin to master that particular skill. The players need to become more reliant on their own internal feedback systems i.e. muscles, joints, etc. rather than the external video feedback system.

Conclusion

The follow-on from siliconCOACH timeWARP is to analyse in detail the session using siliconCoachPro. The presentation is then copied to CD or DVD, which not only creates a history of the strokes but also is an excellent reference tool for the player to take home for future viewing.

I have been able to integrate this simple piece of software as a valuable tool into my training programmes with good success. As commented above I would suggest it is more useful in the early stages of learning



and then it should be slowly withdrawn from the learning process. These are purely observations based on my practical experiences as a professional coach and I think it would be very interesting to complete systematic research on this topic.

References

www.siliconcoach.com