

Reading the play in team sports: yes it's trainable!

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One of the great coaching debates concerns whether the ability to read the play in team sports is innate or trainable. Some coaches describe it as the player who is a good driver in heavy traffic, the player who seemingly knows what is going to happen next, two passes before it happens. While they may not be the fastest around the court or field, their ability to accurately forecast a game's future means they always seem to have all the time in the world. By now you will have visualised players such as basketballer Andrew Gaze, AFL footballer James Hird, netballer Natalie Avelino or rugby union flyhalf Stephen Larkham.

For many of us mere mortals, reading the play is more akin to reading Latin, and it seems this reinforces the notion that it cannot be trained. However, while obviously some players will always be better than some others, there is now a great deal of evidence to suggest players can learn to read the play – just as you can learn to read Latin!

In scientific terminology, 'reading the play' is referred to as pattern recall or recognition. Watching a team sport like netball is a classic example of watching a continuously changing pattern. Interestingly, while the pattern may look meaningless to the untrained eye, that is, 14 players sprinting and dodging in all directions, to an expert player (or coach) it can all look completely logical and can inform them in advance as to where the ball is about to be passed. This is quite a handy skill to have if your job requires you to intercept as many opposition passes as possible - just ask Liz Ellis.

What's chess got to do with team-sports?

Pattern recall was first investigated in the game of chess. Research was able to demonstrate that grandmasters were able to sum up a board in one quick glance. Provided with five or ten seconds to look over a specific chess situation, the best players could accurately recall the exact location of 90 per cent of the pieces. Lesser skilled players could only remember 50 per cent. The researchers concluded that the grandmasters could 'chunk' the pieces on the board into fewer, larger chunks of information that were more easily remembered and subsequently recalled to produce the required pattern, much in the same manner as how we all remember frequently used telephone numbers as one block of numbers rather than eight individual numbers.

Sports science has demonstrated that elite team-sport players also possess the analytical mind of a chess master. For example, research has identified that elite players have developed the ability to rapidly recognise and then memorise patterns of play executed by their opponents. Importantly, this capability to recognise opposition team's attacking or defensive patterns is not because the elite players have a bigger memory capacity than the rest of us – that is, it is not innate. Rather, their memory of sport-specific strategies is simply more detailed than ours and develops through years of practice and experience.

Pattern recall research in sport can be illustrated from netball where the recall ability of members of the Australian team through to under-17 talent identification squad members have been examined. Presented with video footage of netball game situations, the players had approximately ten seconds to view a piece of play before the footage was occluded. They were then required to recall the attacking and defensive structures of the two teams by plotting the location of each player as they had last seen them in the video clip on a blank diagram of a netball court. On average the Australian players were able to accurately recall the location of 72 per cent of all players. In comparison, Australian Institute of Sport players recalled 62 per cent while the under-19 and under-17 squads recalled approximately 57 per cent. Such results illustrate the contribution of reading the play to the make-up of our elite team sport players.

So how can it be trained?

Researchers who have interviewed some of sports great decision makers consistently find that they engaged in extensive team-based game-play as children, be it in their backyards or with others at the local park (for example, two-on-two street basketball). They also played a variety of team sports before specialising in the sport they made into a profession. For example, expert AFL decision-makers tend to have played significant amounts of basketball in addition to football. It has been reasoned that by playing similar 'invasion' sports they were constantly learning to read patterns based around the fundamental team sport concept of creating time and space.

Obviously, the more games you play, the more likely you are to become accustomed to specific attacking and defensive strategies and develop an understanding of where the ball will be passed. Whether a player then becomes a skilled decision maker relates to whether their coach draws their attention to such details. Coaches who provide their players with game-based training opportunities rather than stereotypical drills with minimal decision making requirements are likely to develop more competent decision makers. To quote AFL coaching legend David Parkin: 'Players need to bring their brain to training'.

Reading the play can also be developed off-field by asking players to predict what is going to happen next when watching televised matches. Rather than simply spectating, players put themselves in the shoes of the experts and answer questions such as: where should the ball be passed next? Where should the support player run to?

Test your players pattern recall skill

Pattern recall ability is one skill where your players can easily be tested in a club setting:

1. Videotape a selection of elite level games of your sport from television.
2. Draw to scale a blank version of your playing field or court.
3. Select passages of play that contain structure and then show approximately ten seconds of the play to allow the players to get a feel for the scenario before quickly stopping the tape.
4. The players' task is exactly as described in the previous netball research example. Test the players on a variety of situations that occur in a match.

For example, stop a tape of Australian football just as the fullback prepares to kick the ball into play. The footage shown from behind the goal often provides an excellent perspective of the patterns a fullback is attempting to read.

Conclusion

While there will always be players with a greater ability to read the play, it is a skill that is primarily developed through quality coaching. To use an analogy from strength training, you cannot expect to make significant gains in muscular strength if you do not do a systematic weights program manipulating the variables of volume, frequency, intensity and overload. Likewise, players will not develop decision-making skills if their coaches only prescribe practice drills devoid of decision-making opportunities. There must be a systematic application of game based practice activities that require players to make decisions as required in game situations.

Suggested readings

Abernethy, B, Cote, J and Baker, J 2002. Expert decision-making in team sports, report on research commissioned by the Australian Sports Commission.

Berry, J and Abernethy, B 2003. Expert game-based decision-making in Australian football: how is it developed and how can it be trained?, research report submitted to the Australian Football League Research Board.

Farrow, D, Plummer, N and Byers, C 2002. The development and implementation of perceptual-motor skills tests for netball, a report on research commissioned by the Australian Sports Commission.

Merrick, E and Farrow, D 2000. 'Coaching decision-making in soccer: a constraints-lead approach', *Insight* 2(3):48-51.