

The Soccer Brain is The Difference Maker

An increasing body of sports science research is highlighting the importance of the cognitive skills of the players when playing the game. These studies are consistently showing that it is the mental abilities, not necessarily physical prowess, that is the differentiating factor between elite and non-elite players. It is the "soccer brain" that is the key determinant factor in achieving elite level performance, and subsequent success or failure in competition.



"You play football with your head"

Johan Cruyff, Soccer Genius

Traditionally soccer coaches have isolated speed, strength, stamina and other physical elements and developed these with focused conditioning whilst the cognitive component of performance is left largely untrained and under-developed. Yet, it is the reading and reacting to the flow of game, anticipating opponents and teammates, assessing ball trajectories, and effective decision-making under pressure that give the critical edge during competition.

It is now clear that the same attention has to be given to developing these mental abilities and a more holistic approach to player development is needed, with training that stimulates both the body and the mind.

Decision Making

Decision making is the most obvious of the cognitive elements of performance. The player who consistently makes the better decisions continuously throughout the match undoubtedly has a competitive advantage over his opponent. However good decision making relies upon a multitude of other cognitive abilities playing their part in the process. A player can only make good decisions based on what they are aware of otherwise all they have done is made a guess!

Awareness - Game Awareness = Situation Awareness

Good awareness is essential if players are to excel during performance. The fast-paced dynamic nature of soccer dictates that the game situation is continuously evolving, therefore the player must constantly update their "pictures" or they will be acting upon out-of-date information - that is their situation awareness must constantly change. Endsley's three-level model for situation awareness has been adapted to provide an easily accessible model for game awareness in soccer,

which provides important frames of reference when developing this key skill in players.

Active Scanning - Visual Search Strategy & Visual Exploratory Activity

During the game, players should engage in continuous active scanning of the environment in order to assess what is going on around them. This seemingly innocuous action of "having a look" is an essential habit that players must be encouraged to develop but, as simple and easy as this sounds, some players just do not do it often enough.



Think quickly, look for spaces. That's what I do: look for spaces. All day. I'm always looking. All day, all day.

*Xavi, Champions League Winner
(click image for full interview)*

A study into the English Premier League highlighted the significant difference in frequency of looking around even amongst players competing at the highest level, and revealed how this impacted upon pass completion rates.

Perception - Advance Cue Utilization & Pattern Recognition

Players use the postural cues from opponents and teammates and the recognition of patterns (where players are in relation to each other) to inform them of what is happening, and what is about to happen, in the game. Research has shown that expert players are able to identify and interpret meaning from these patterns and cues much earlier and more accurately than non-experts.

Focus of Attention - Dynamic, Distributed, Selective & Sustained

Where a player places their focus of attention (in simple terms, what they look at) is incredibly important. Too many players are ball focused for too long and at the wrong moments in the game. Although the ball is the primary point of reference for players the old coaching mantra of "keep your eye on the ball" is only essential at very specific moments in the game. In fact, as almost 98% of the game is spent of the ball and a players role and responsibility at any moment in time is dictated by ball, teammates and opponents This means that during the game players should largely be keeping their eye off the ball!