Football coaching should be tailored for teenage brains, research says

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Creating the next generation of football stars may be down to understanding the teenage brain, according to new research from the University of Bristol. The study, published in the FA [Football Association] journal *The Boot Room*, suggests that to unlock the full potential of talented players coaches need to be aware that the decision-making process in the teenage brain operates significantly differently to the adult brain.

The ESRC-funded study, which explored developmental differences in response to risk and reward across the academy age range (9- to 18-year-old players), found that young players may be at different stages of mental development (similar to physical differences), with mid-teens (14- to 17-years-old) displaying a particular heightened sensitivity

toward risky decision-making, especially in motivated football contexts.

Research shows that the teenage brain's cognitive and emotional systems do not develop at the same rate. During this teenage period the brain experiences developmental 're-organisation', which can affect how adolescents think, feel and behave. Such change can have a significant effect on an adolescent's 'higher order' functions such as decisions-making, focusing their attention and having an awareness of other people's intentions. These abilities are some of the last regions of the brain to develop and may not fully mature until well into the third decade of life.

It also explains why, in potentially uncertain or risky situations, teenagers can act impulsively with reactive decision-making both on and off the pitch. This is because the teenage brain is relatively unbalanced compared with younger children and adults, related to a faster maturing emotional system (maturing in early teens) outweighing a slower cognitive control system (not fully mature until early adulthood). This 'emotional overshoot' for teenagers is likely triggered in aroused contexts such as during elevated levels of competition, emotional situations or in the presence of peers and has implications for the teaching environments created by football educators.

Coaches, in light of these findings, shouldn't be surprised to encounter teenage players who display erratic traits and poor decision-making, both on and off the pitch and perhaps greater understanding may help them through this developmental period and patience should be shown with players whose weaknesses involve poor decision-making.

Perry Walters, the study's lead author and a researcher in the University's Graduate School of Education, said: "The findings indicate that on the football pitch teenagers may be thinking and making decisions in a different way than adult players. They may find it harder to control their

impulses, particularly during moments of elevated emotion. Coaches need to be aware that players may be at different stages of mental development and shouldn't assume that they can all think like adults."

The ESRC-funded study entitled 'Teenage kicks: football, growth spurts and the brain' by Perry Walters, PhD researcher at the University of Bristol and Academy Coach at Bristol City FC and Paul Holder, FA National Development Coach (12 – 16).

More information: www.thefa.com/st-georges-park/ … s-club/the-boot-room

Provided by University of Bristol