Participant and Performer Development in Youth Football: The Need for Bio-Psycho-Social Support

Dr Kevin Till

Dr Andrew Abraham

Dr Stacey Emmonds

Dr Tom Mitchell

Dr J. North

@KTConditioning

@AndrewAbraham11

@S_Emmonds

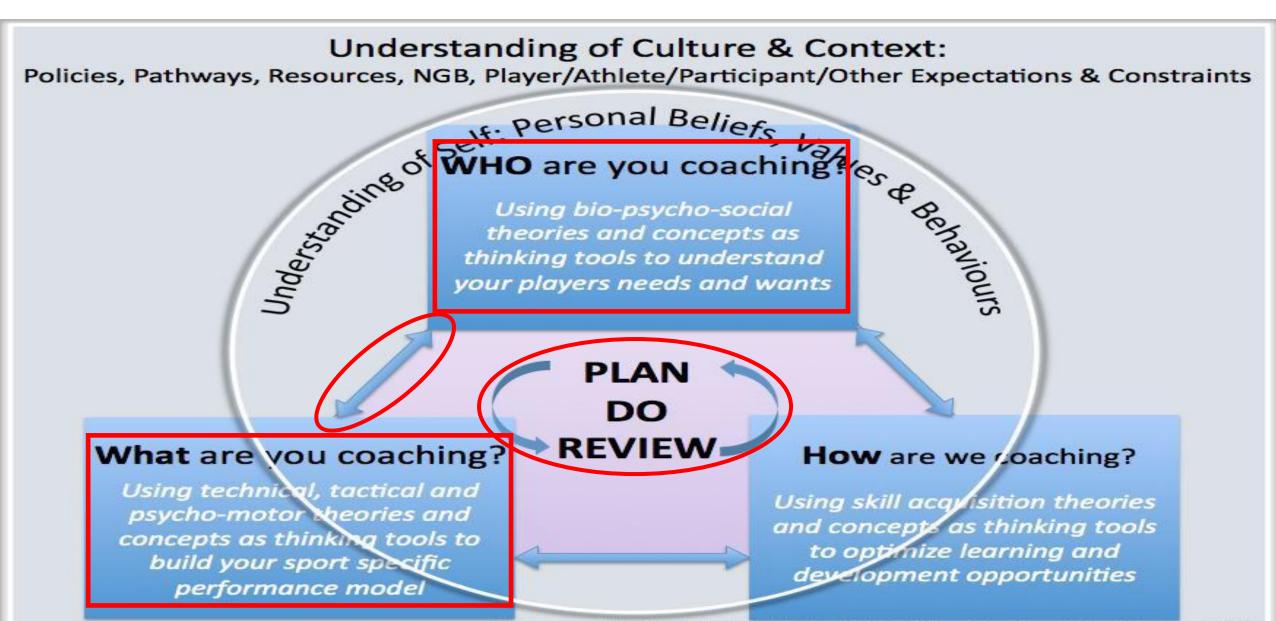
@tom_mitch3

@jnorthleeds





Coach Decision Making Model (Abraham et al., 2010)



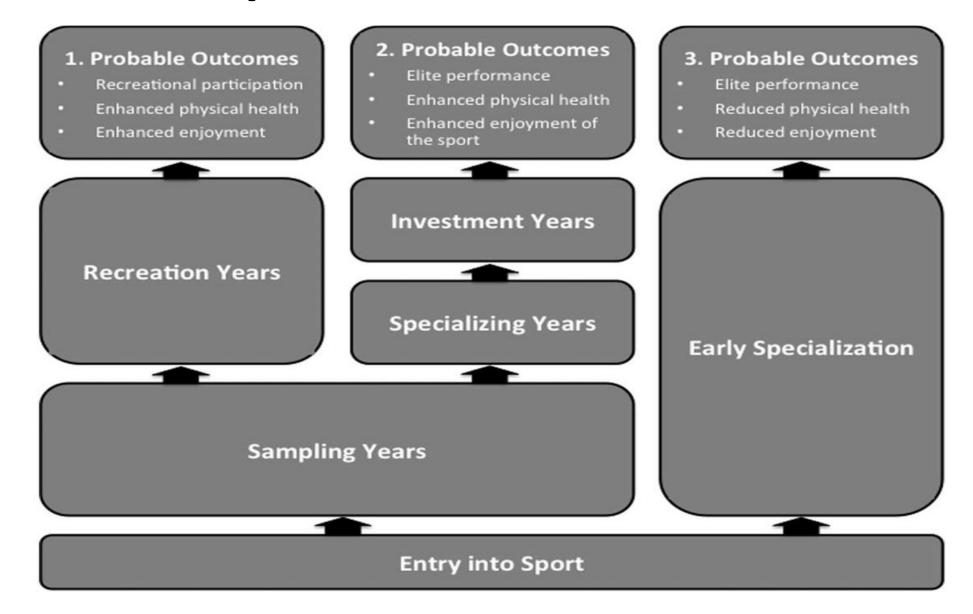
A Framework For Coach Decision Making (Adapted from Abraham, Muir & Morgan, 2010)

Athlete Development Models (Tinning et al., 1993)

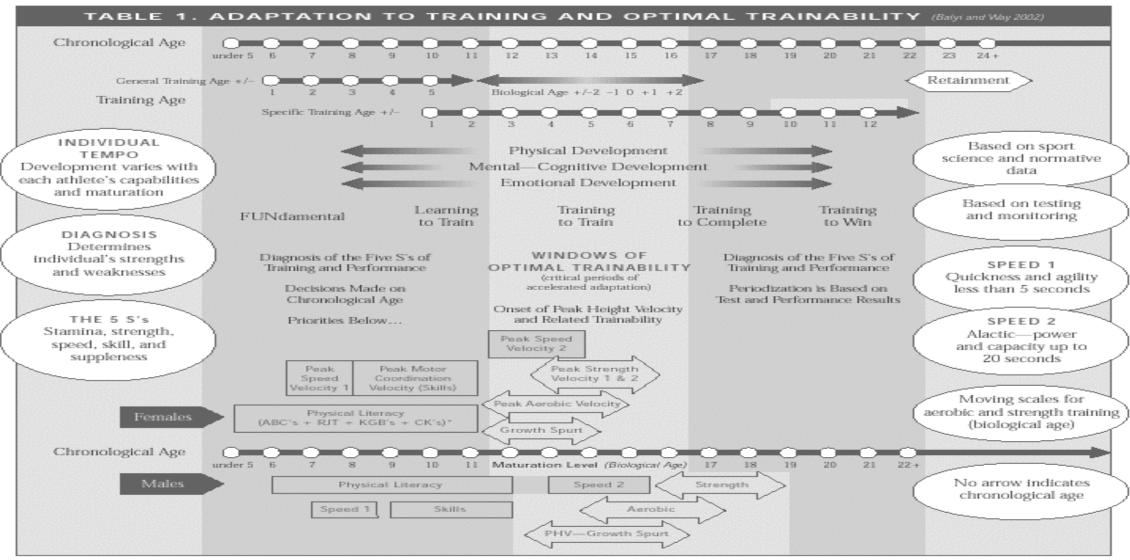


Figure 3.1: The pyramid model of sports development (adapted from Tinning, Kirk and Evans, 1993)

Athlete Development Models (Cote, 1999)



Athlete Development Models (Bayli & Hamilton, 2004)



^{*}ABC's - Agility Balance Coordination Speed + RJT - Run Jump Throw + KGB's - Kinesthesia Gliding Bouyance Striking with objec + CK's - Catching Kicking Striking with body

FTEM Athlete Development Pathway (Gulbin et al., 2013)

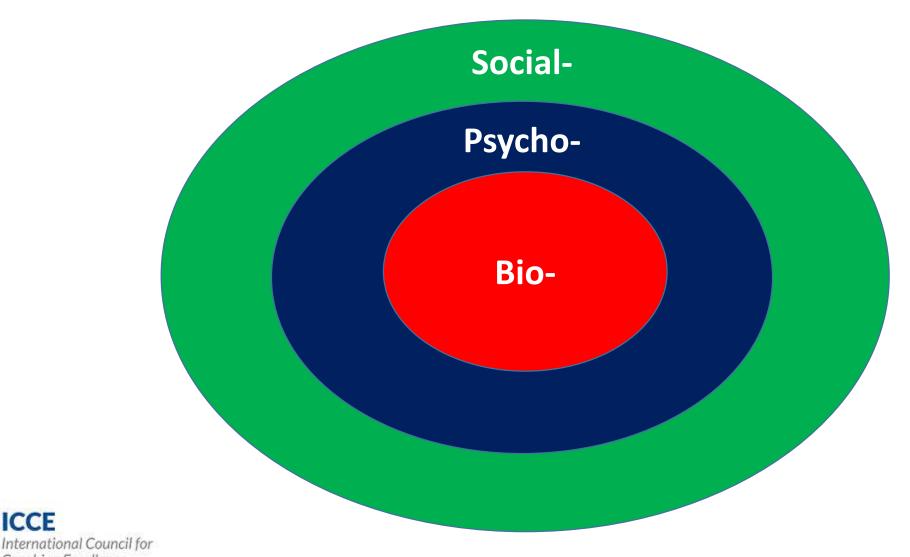


Dilemmas in Research & Practice

- Models only offer a partial or sub-set perspective of participant and performer development
- Models lack Sport Specificity
- 'Breadth' and 'Depth' of knowledge for large number of characteristics across all stages of development is limited
- Application of models within practice is questionable
- BUT should we expect anything else?
- Symposium Aim Showcase research on Participant and Performer Development in Youth Football including...
 - Systems development (from a holistic perspective), and...
 - Specific Biological, Psychological and Social projects

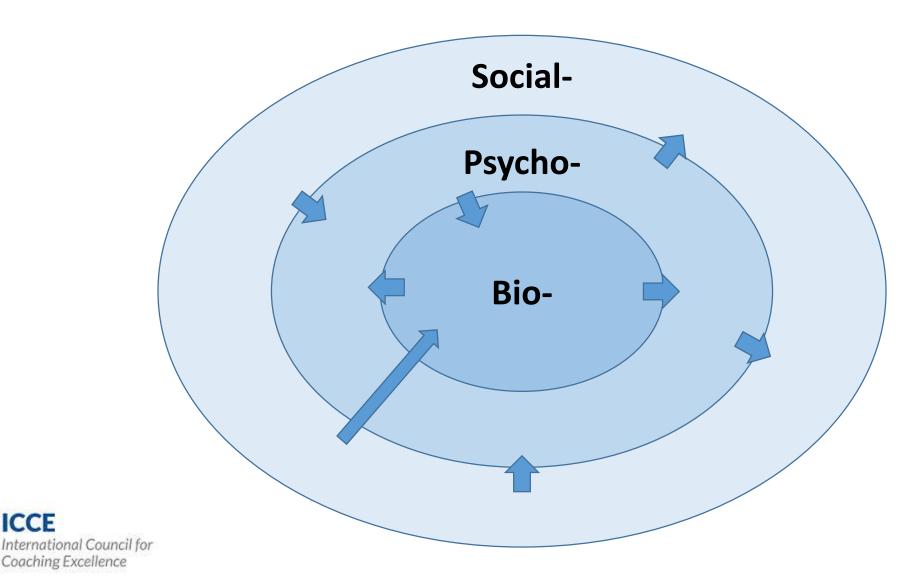
Bio-Psycho-Social Analysis

Coaching Excellence





Bio-Psycho-Social Ontology





Coaching As Professional Judgement and Decision Making

Theoretical View	Summarised Description of What Happens			
Common	Plan/Review	Do		
Perception				
Decision	Analytic	Rule Based	Automatic/Intuitive	
Modes (Yates &	(Formalistic	(Formalistic or		
Tschirhart,	or	Substantive)		
2006)	Substantive)			

(Abraham, Collins & Collins, in Preparation)

Order of Play

- Player development systems as a context for bio-psycho-social development (J. North)
- Biological
 - Maturation & physical characteristics in male youth football players (Kevin Till)
 - Maturation & physical characteristics in female youth players (Stacey Emmonds)
- Psychological
 - Developmental psychology in the youth footballer (Andrew Abraham)
- Social
 - Athletic Identity (and the environment) in elite youth football (Tom Mitchell)
- Practical implications and future research directions
- Q&A



Player development systems as a context for bio-psycho-social development

Dr J. North

Carnegie School of Sport Leeds Beckett University









2014



2016

BUVF

England

Interviews with 18 coaching and player development experts in the FA, Premier League, Championship

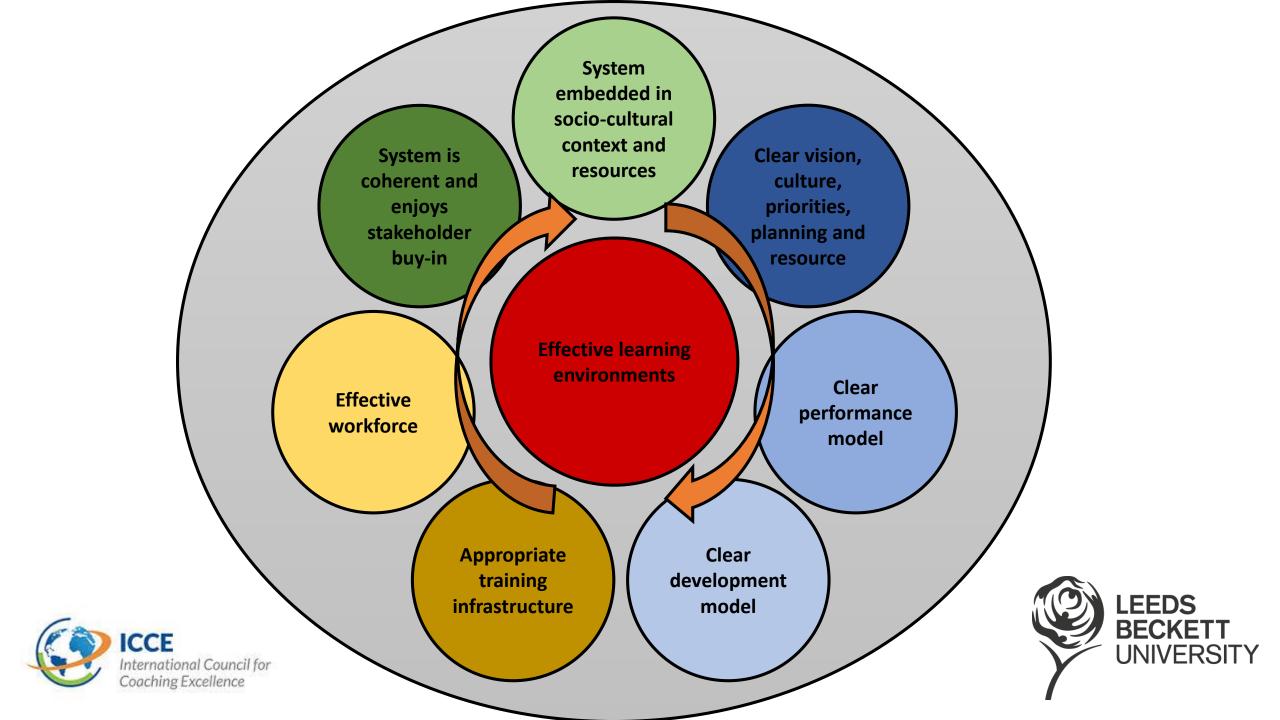
2 sports
12 country systems
58 experts

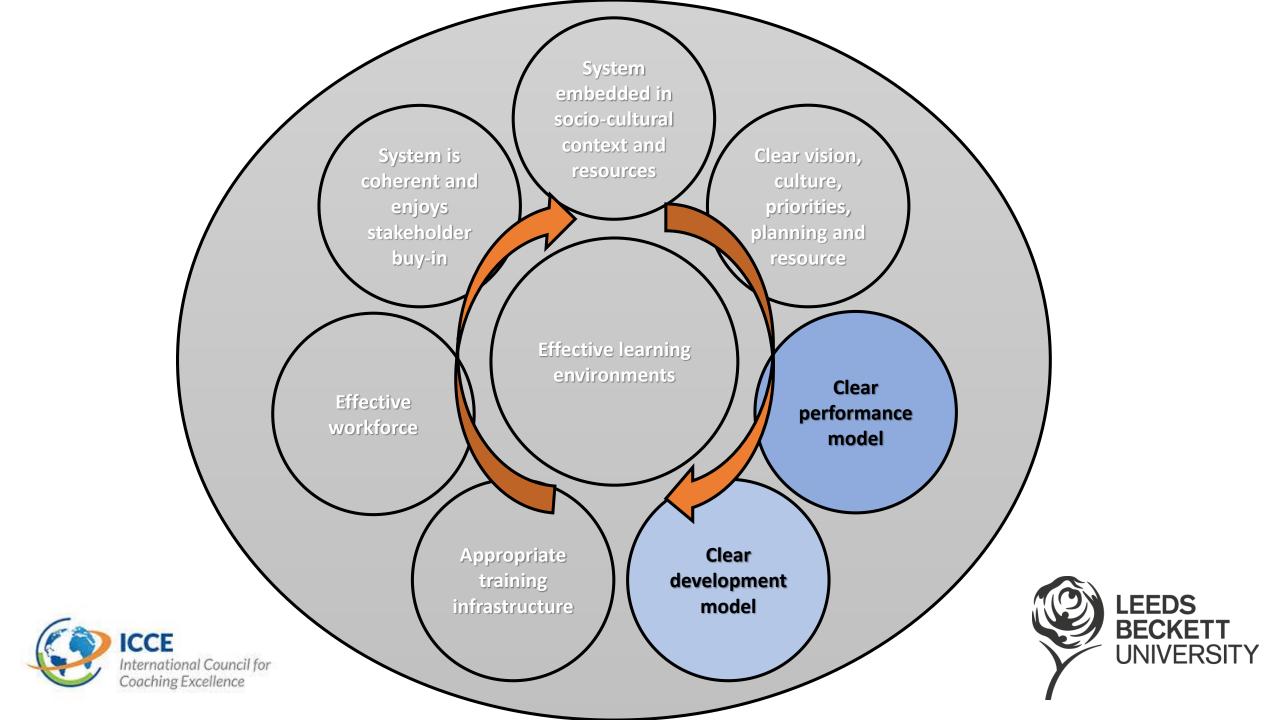
oaching and player s from the football nd tier 1 clubs

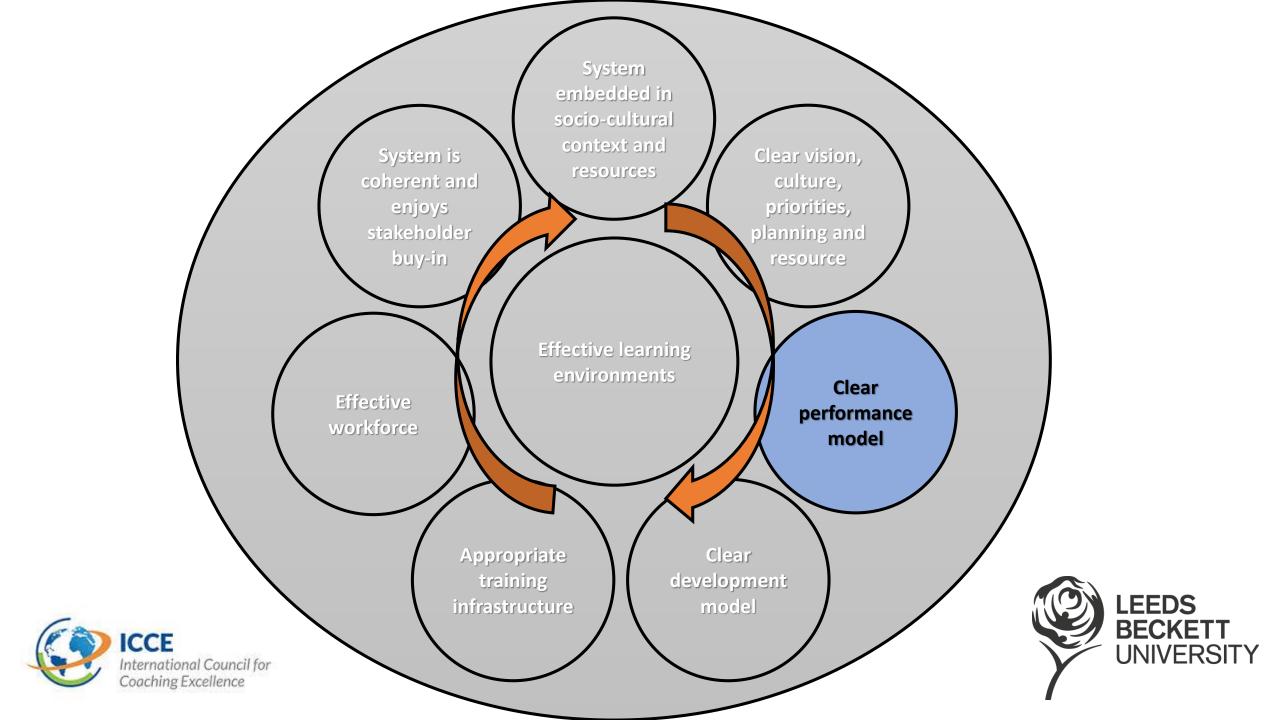
Indonesia, South Korea, Denmark and Spain

tŀ

Interviews with 9 coaching and player development experts from badminton associations notably performance directors, head coaches, sports science







Performance model

- Existing research, and our evidence, points to player performance being a composite of five characteristics/competencies
 - Physical/physiological (P)
 - Psychological (P)
 - Social/lifestyle (S)
 - Movement/technique (T)
 - Tactical (T)
 - PPSTT!



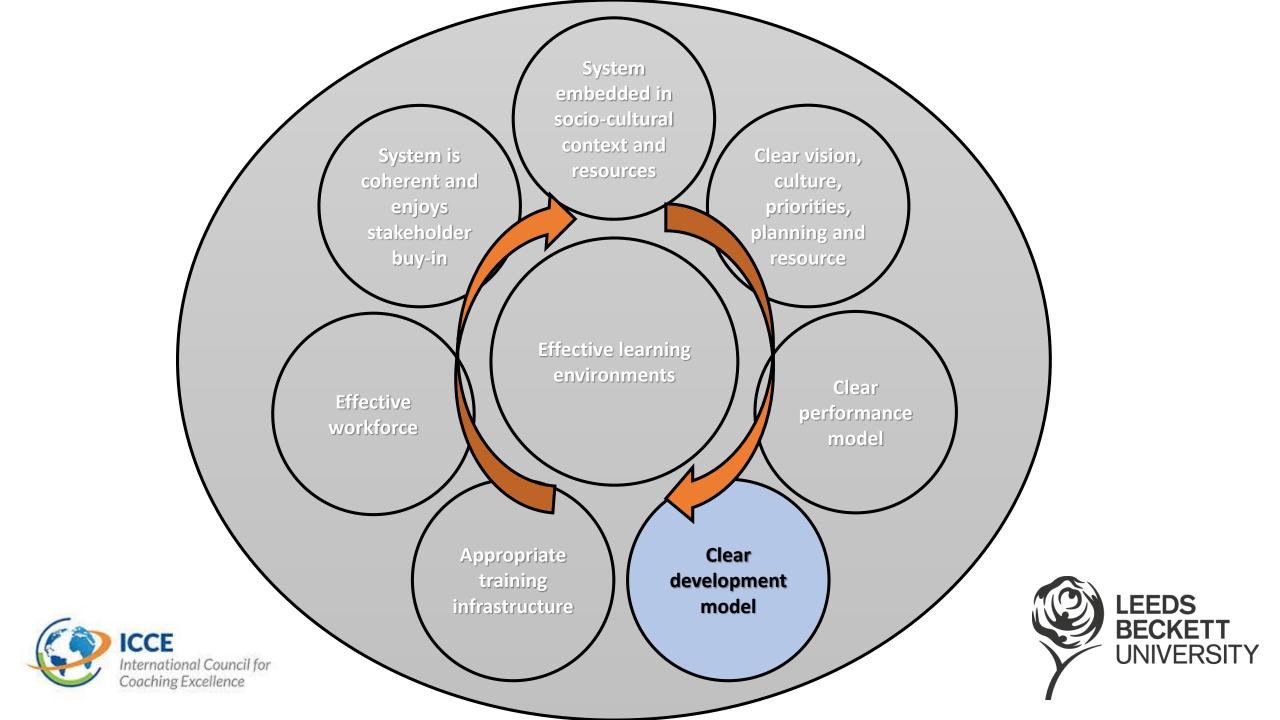


	Physical/	Psychological	Social/lifestyle	Movement/technical	Tactical
ELITE	Physiological				
What the elite level game is like:	Has a high level of physical intensity but also intermittent very high levels of physical intensity – sprints, jumps, physical contact, and sudden direction shifts At the same time the game expects high levels of physical fitness and endurance – players typically run in excess of 10 km in a game	Is psychologically intense, highly pressurised and competitive during practice, competition, and outside the game This requires a number of highly developed psychological characteristics both in learning and development and performing at the highest levels	Involves high levels of personal scrutiny of performance and conduct of players from the media, public, etc. Players are judged as members of a community, a club, a team, dressing room and are expected to contribute to their image and abide by their rules There are high levels of expectation around player conduct and lifestyle management	Although players have varying movement/technical profiles at the elite level – depending on their strengths, position, etc. – there is a consensus growing around particular technical characteristics and competencies Without exception, the research revealed the need for highly movement literate/technically skilled players	There is no one performance model for elite level football – with teams winning international trophies using a variety of approaches and formations However, the game currently appears to be moving towards a possession or counter-attacking based approach with the ball played through the thirds in phase, and/or moved quickly and accurately in counter-attack This requires players to have excellent game understanding and to be able to make quick and effective decisions
Elite players will typically have <u>high</u> <u>levels</u> of the following characteristics and competencies:	Speed/explosive speed Strength Power Hypertrophy Aerobic fitness/endurance Muscular endurance Flexibility	Psychological characteristics that benefit the individual • Ambition - a desire to become a great player • Motivation - especially intrinsic motivation, love of the game • Effort and commitment - engagement, investment, work ethic, determination to succeed • Awareness - high level of awareness of self in all contexts; realistic performance evaluation; strengths and weaknesses and acts accordingly • Attentiveness and focus • Vision - knowing what it takes to succeed, goal setting; planning, effective and appropriate imagery use • Discipline - dedication, taking responsibility, sacrifice, self-control, concentration, distraction control, delaying gratification	Social characteristics that benefit the individual Supportive parents (informational, emotional and practical) Supportive important others - partner, friends, team-mates, coaches, club officials, broader social connections Access/exposure to player development resources - facilities, coaching Social characteristics that benefit the club/team Team spirit and cohesion Team work Collective responsibility Community understanding and integration Lifestyle characteristics and competencies Appropriate education Appropriate social choices	Fundamentals of movement Agility Balance Coordination Fundamental movement skills Stability Object control Locomotion skills - mobility Fundamental sport skills and sport-specific skills Ball control - receiving and controlling the ball as and when it arrives with an assured, varied and secure touch, using all parts of the body; keeping possession of the ball while running, turning, stopping Ball mastery and manipulation - tricks, ability to spin, float and drive the ball Running with ball/dribbling Passing/crossing - releasing the ball accurately and instantly over a	Game understanding - for example, understanding the professional game such as the different requirements for playing in the Champions League, Premier League and Championship Strategy Game intelligence/reading the game/game sense e.g. movement off the ball Team/unit understanding and organisation Recognising opportunities to attack - disrupting stable systems Recognising defensive threats Game control and manipulation - players who can influence the tempo and shape of the game Positioning Knowing about ball actions Knowing about others' actions Acting in change situations

Performance model

- Existing research, and our evidence, points to player performance being a composite of five characteristics/competencies
 - Physical/physiological (P)
 - Psychological (P)
 - Social/lifestyle (S)
 - Movement/technique (T)
 - Tactical (T)
 - PPSTT!
- These 'ideal' characteristics/competencies are guides:
 - There will be different emphasis between cultures (countries) and individuals





Development model

- If we know our elite performance exhibit high level PPSTT characteristics/competencies, then we need to develop them!
- The days of physical and technical development only are over (more or less)!
- All effective systems attend to holistic PPSTT characteristics/competencies (whether this is delivered on the ground is a different matter!)
- But in different ways...









Development model

- If we know our elite performance exhibit high level PPSTT characteristics/competencies, then we need to develop them!
- The days of physical and technical development only are over (more or less)!
- All effective systems attend to holistic PPSTT characteristics/competencies (where this is delivered on the ground is a different matter)
- Also, and finally, for current purposes, <u>aged/staged</u>





	Physical/physiological	Psychological	Social/lifestyle	Technical	Tactical
17-21 years	Developmental focus Physical development with strength and condition specialist Key activities Activities to build strength, speeds, power, flexibility etc.	Developmental focus Continue to develop key psychological characteristics - motivation, commitment, discipline, resilience, confidence, desire to learn and improve; work on refinement of high level professional characteristics - awareness and concentration, coping with pressure and stress, competitive behaviours and appetite for winning, never giving up Key activities Continue to build players key psychological attitudes and skills in and out of sessions	Developmental focus Help players manage transition to first team football, working on higher level social characteristics - place and humility, respect etc.; reinforce importance of appropriate lifestyle characteristics and choices - nutrition, hydration, rest and social behaviour Key activities Helping players to understand professional environment	Developmental focus Maintaining and refining technical skills; work on position specific skills Key activities Position specific skills	Developmental focus Develop detailed understanding and awareness of game, tactics, team organisation; understanding difference between different levels of competition, increasing overall speed of play; providing opportunities for young players to play at senior/first team level Key activities Advance game understanding and tactics, and playing opportunities
12-16 years	Developmental focus Sensitivity to changes associated with sexual maturity; there are differing opinions about the introduction of physical development work in this age band; some advocate a specialist programme, others suggest physical development should be done through normal game related training activities Key activities Physical development through games	Developmental focus Getting to know players and building relationships; emphasising personal responsibility, motivation, discipline and focus; establishing a practice ethic; sessions in the learning/challenge zone, emphasising calculated risks and creativity Key activities Continue to build players' key psychological attitudes and skills in and out of sessions	Developmental focus Helping players through difficult life changes; work with and develop players ideas about friendship/peer group encouraging mutual support, respect and humility; develop a culture of hard work; develop good nutritional and life-style habits; manage parent expectations; working with educationalists Key activities Helping players through a difficult period	Developmental focus Manage technical inconsistencies associated with sexual change; skill development under pressure; greater emphasis on passing and retention; advanced technical skills; exposure to position specific work though players not 'locked in'; work with skills coaches; continue to encourage engagement in other sports Key activities Problem solving games, move towards 11-a-side, some unopposed development	Developmental focus Prioritise game understanding and awareness; awareness of roles in and out of possession; overall decision-making; manage transition to 11-a-side Key activities Problem solving games such as 3v2; use competitive matches as development opportunities

	Physical/physiological	Psychological	Social/lifestyle	Technical	Tactical
8-11 years	Developmental focus No specific physical focus other than engaging youngsters in games of a slightly longer duration Key activities Physical development through games	Developmental focus Same as 5-7 years but encouraging youngsters' self-regulation e.g. showing up on time, encourage players to take responsibility for their own learning, coaching focused more on individual players, using consultation to shape sessions, use questioning more, encourage risk taking and creativity Key activities Building players psychological attitudes and skills, experimentation through games	Developmental focus Same as 5-7 years but focus more on evolving peer/team mate relations, and managing parents with regard to selection and competition. Key activities Working with team on their relationships, talking to parents	Developmental focus Same as 5-7 years but refine movement skills, and greater focus on technical ball skills particular ball retention and passing, using both feet, encourage engagement in other sports. Key skill development age. Key activities Problem solving games, small sided games, some unopposed development (but keep fun)	Developmental focus Work on decision-making - when to pass, when to dribble, when to share, when to keep, consider off the ball movement, and reading and anticipating play, introduce and manage competition, more detailed rules later in this age group Key activities Problem solving games, small sided games 3v3, 4v4.
5-7 years	Developmental focus No specific physical focus other than engaging youngsters in games Key activities Physical development through games	Developmental focus Getting to know the youngster, being a 'fun friend', making the youngster feel safe, secure and happy, establish clear behavioural boundaries, prioritising fun and enjoyment in sessions, plan structured sessions but with variety (change every 10-15 minutes), simple language, with low levels of instruction, very positive/encouraging approach Key activities Fun varied games	Developmental focus Work with club, other coaches and parents to define a clear philosophy, expectations and manage problems. Key activities Talking to parents	Developmental focus Prioritise movement development such as agility, balance and coordination, introduce ball work notably dribbling and shooting with players having many touches, encourage engagement in other sports Key activities Fun games with movement focus, small sided games 2v2, 3v3, some unopposed development (but keep fun)	Developmental focus Develop a basic understanding of the game - team, directions of attack, simple rules Key activities Small sided games with some very basic tactical ideas such as passing and space (though these are not a priority compared to movement and ball skills)

References

North, J., Lara-Bercial, S., & Rongen, F. (forthcoming). Components of effective performer development systems. Journal of Sports Science (target).

North, J., Lara-Bercial, S., Rankin-Wright, A. J., Ashford, M., & Whitaker, L. (2016). Player development systems in the performance pathway in four world-leading badminton nations: A literature review and interviews with experts from Indonesia, Korea, Denmark and Spain. Leeds: Carnegie School of Sport, Leeds Beckett University.

North, J., Lara-Bercial, S., Morgan, G., & Rongen, F. (2014). The identification of good practice principles to inform player development and coaching in European youth football. A literature review and expert interviews in Belgium, England, France, Germany, Italy, the Netherlands, and Spain in the performance pathway: A research report for UEFA. Leeds: Research Institute for Sport, Physical Activity and Leisure. Leeds Beckett University.

North, J., Morgan, G., & Rongen, F. (2012). Matching player & coach competencies in association football across age categories 5-11, 12-16 & 17-21 years: A research report for the Football Association. Leeds, UK: Leeds Metropolitan University.

Maturation & Physical Characteristics of Male Youth Football Players

Dr Kevin Till

@KTConditioning





IOC Consensus on Youth Athletic Development

"Sports participation with appropriate physical development decreases the risk of sports related injuries, and enhances the likelihood of achieving and sustaining an enjoyable, high level of performance

Muscular fitness and effective movement skills serve as the foundation for achieving optimal and sustainable long-term athletic performance; Therefore, an emphasis on developing muscular strength, power, speed and agility of young athletes with appropriate age-related interventions is **ESSENTIAL!!!"**





Anthro & Body Comp

Muscular Strength & Power

Movement & **Flexibility**

Clear performance model

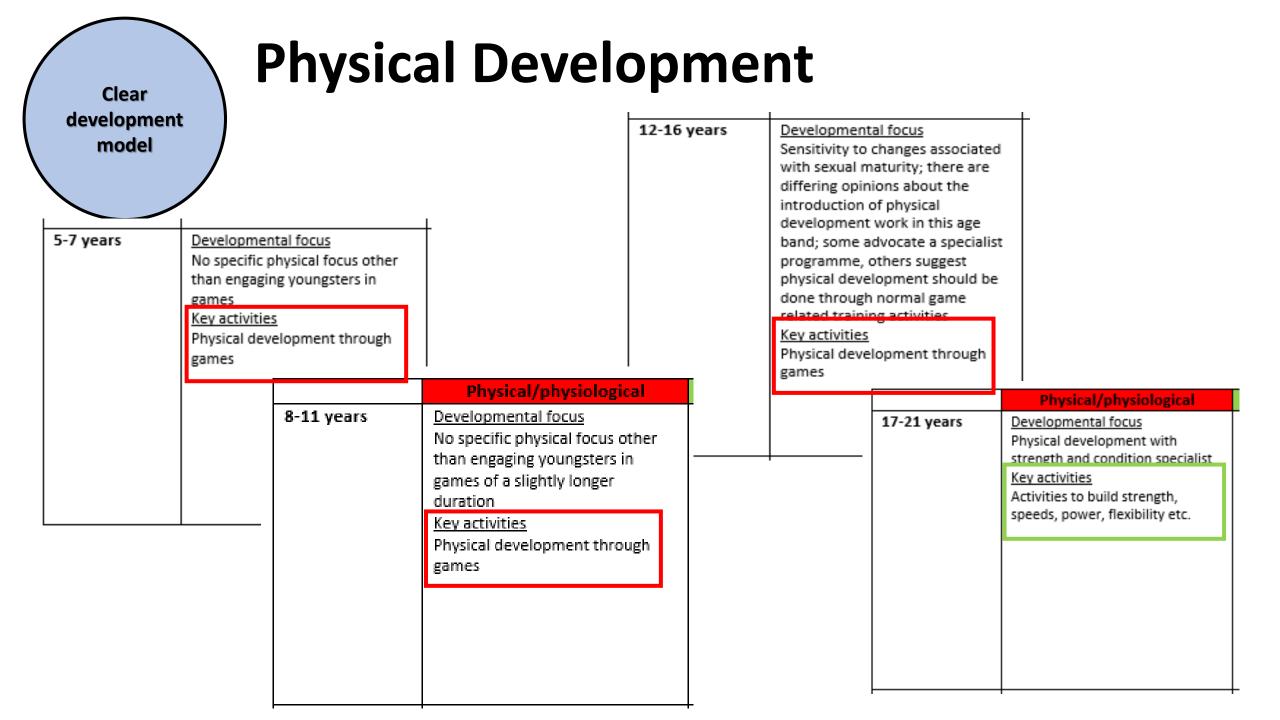
Physical Qualities

Endurance Capacity

Linear **Speed**

Agility (Change of **Direction**)

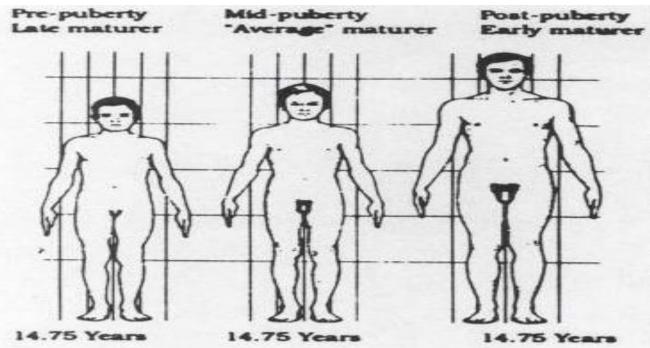




Maturation

The *TIMING* and *TEMPO* of progress towards the mature adult state



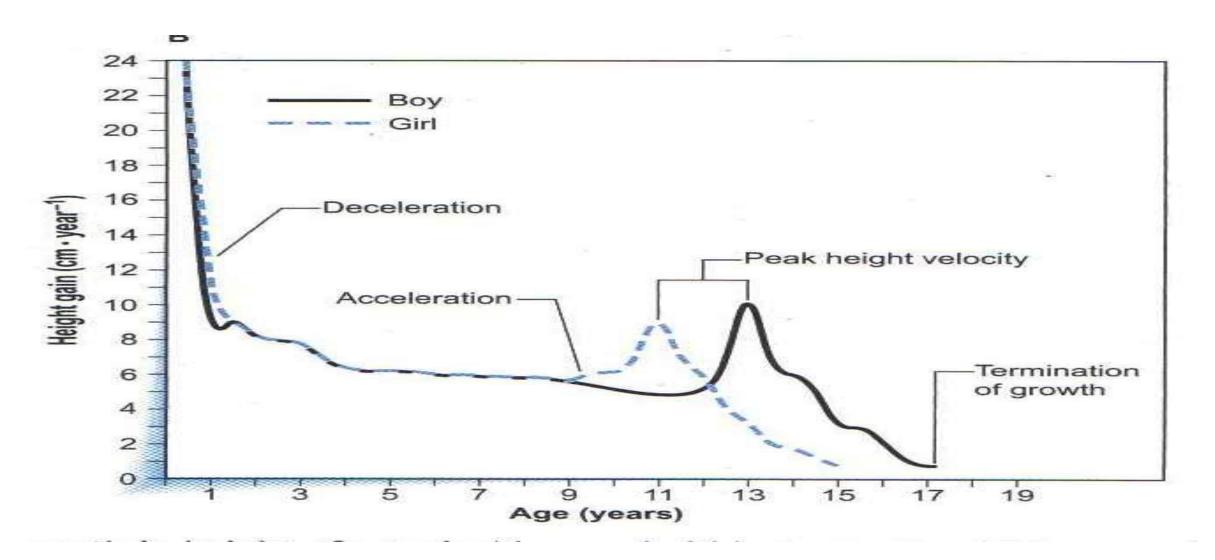


Comparison of Late, Average and Early Maturers of the same Chronological Age

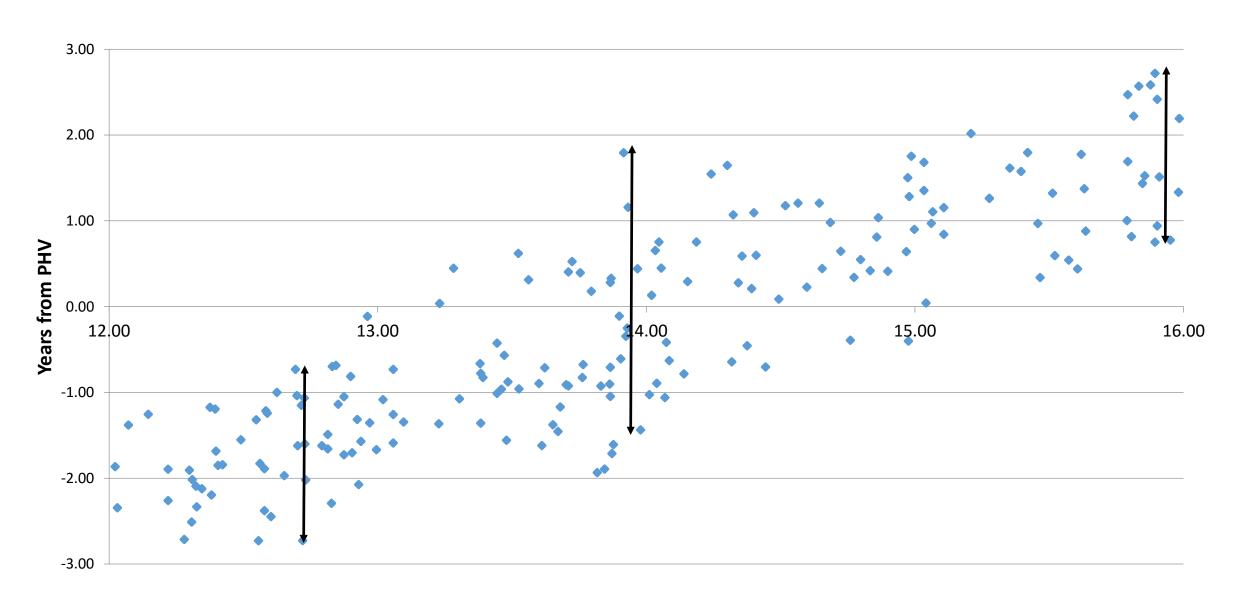




Maturation – Age at PHV



Age vs Maturation in Youth Soccer



What does this mean for Youth Football?

Chronological Annual Age
Grouping

+

Individual variation in biological maturity

+

Relationship between maturation and performance

Players may be
(dis)advantaged within
selection opportunities
and have different
developmental needs

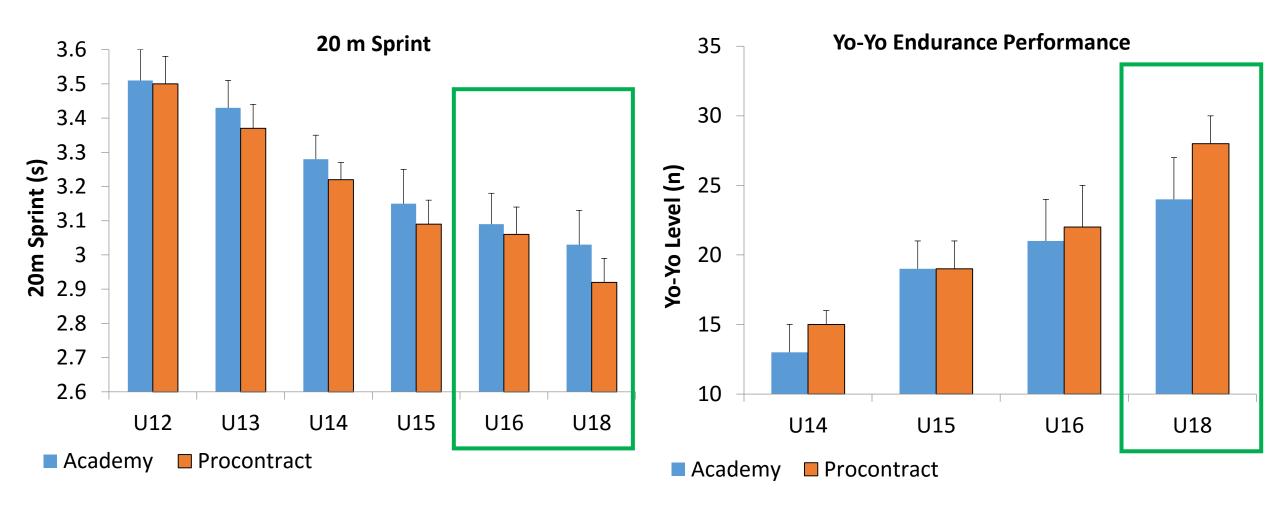


Anthropometric, Speed & Endurance Characteristics

	U9 (n=67)	UIO (n = 94)	UII (n = 168)	U12 (n = 172)	U13 (n = 211)	U14 (n = 195)	UI5 (n=151)	U16 (n = 123)	U18 (n=321)
	I	2	3	4	5	6	7	8	9
Chronological age (y)	8.87 ± 0.34	9.83 ± 0.38	10.88 ± 0.31	11.95 ± 0.35	12.95 ± 0.31	$\textbf{13.84} \pm \textbf{0.32}$	14.84± 0.30	15.73±0.33	17.61 ± 0.45
Height (cm)	$\textbf{132.0} \pm \textbf{4.9}$	$\textbf{136.9} \pm \textbf{5.2}$	141.4 ± 7.2	147.3 ± 7.5	$\textbf{155.5} \pm \textbf{9.1}$	161.0 ± 8.4	169.6 ± 7.5	$\textbf{174.1} \pm \textbf{8.1}$	178.1 ± 7.9
	(118.0-141.0)	(119.5-148.3)	(126.0-161.6)	(129.2-175.0)	(133.5-177.6)	(139.0-183.4)	(151.9-191.6)	(149.0-193.0)	(157.1-197.4)
Body Mass (kg)	29.4 ± 3.2	$\textbf{33.2} \pm \textbf{3.9}$	36.8 ± 5.7	40.7 ± 6.4	46.6 ± 8.0	$\textbf{51.8} \pm \textbf{7.8}$	61.0 ± 7.6	66.7 ± 8.6	$\textbf{72.5} \pm \textbf{8.6}$
	(22.5-38.4)	(26.1-46.7)	(27.1-56.6)	(28.0-68.2)	(30.1-69.6)	(34.7-74.9)	(42.7-85.4)	(44.6-86.6)	(55.0-88.5)
10 m Speed (s)	$\textbf{2.19} \pm \textbf{0.07}$	2.13 ± 0.06	2.06 ± 0.09	2.00 ± 0.11	1.99 ± 0.10	1.90 ± 0.10	$\textbf{1.84} \pm \textbf{0.03}$	$\textbf{1.82} \pm \textbf{0.07}$	$\textbf{1.79} \pm \textbf{0.05}$
	(2.04-2.36)	(1.96-2.31)	(1.90-2.27)	(1.85-2.26)	(1.76-2.26)	(1.67-2.18)	(1.65-1.99)	(1.66-1.97)	(1.65-1.92)
20 m Speed (s)	$\textbf{3.85} \pm \textbf{0.16}$	3.66 ± 0.11	3.64 ± 0.14	3.51 ± 0.13	3.43 ± 0.18	3.28 ± 0.09	$\textbf{3.15} \pm \textbf{0.17}$	$\textbf{3.09} \pm \textbf{0.08}$	$\textbf{3.03} \pm \textbf{0.12}$
	(3.26-4.23)	(3.20-4.11)	(3.18-4.00)	(3.00-3.96)	(2.99-3.87)	(2.91-3.47)	(2.90-3.32)	(2.82-3.29)	(2.78-3.21)
YYEI2 (n)					13±3	13±4	19 ± 4	21 ± 6	24 ± 6
					(7–21)	(7-23)	(8-27)	(9-30)	(12-38)

Emmonds, S., et al. (2016) Anthropometric, speed and endurance characteristics of English academy soccer players: Do they influence obtaining a professional contract at 18 years of age? *International Journal of Sports Science and Coaching*, 11(2), 212-218.

Anthropometric, Speed & Endurance Characteristics: Influence on Pro Contract?



Emmonds, S., et al. (2016) Anthropometric, speed and endurance characteristics of English academy soccer players: Do they influence obtaining a professional contract at 18 years of age? *International Journal of Sports Science and Coaching*, 11(2), 212-218.

But What About Strength?

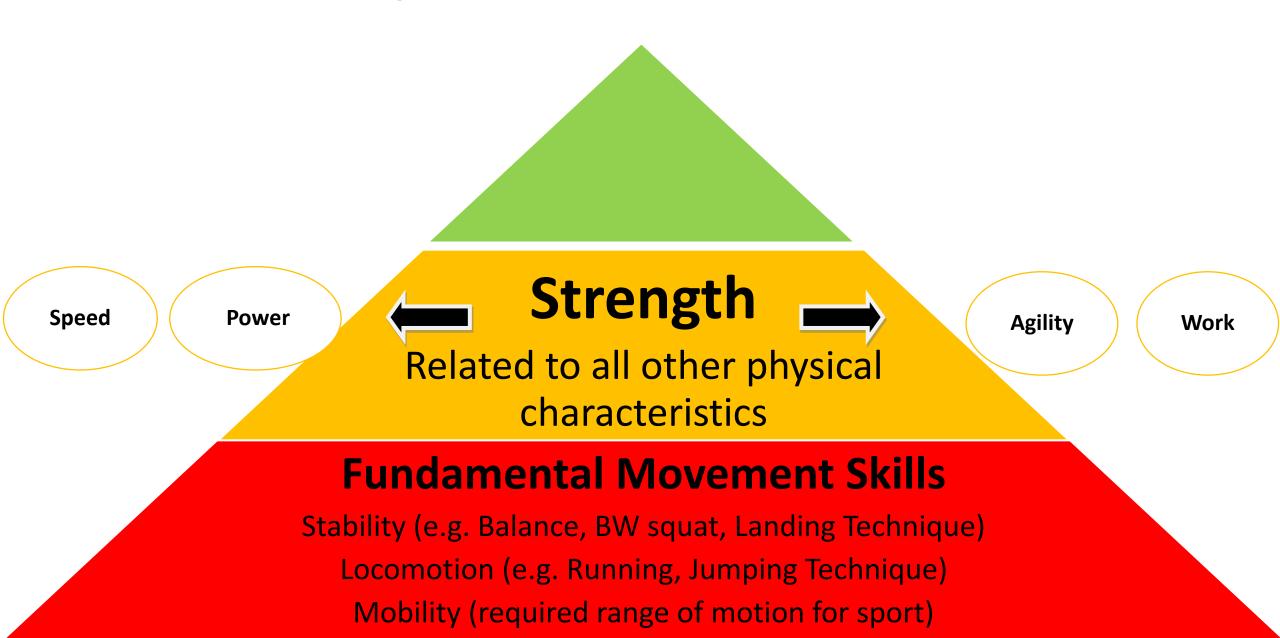
YOUTH PHYSICAL DEVELOPMENT (YPD) MODEL FOR MALES																				
CHRONOLOGICAL AGE (YEARS)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+
AGE PERIODS		ARLY			M	IDDLE	СНІІ	DHO	OD					ADO	LESC	ENCE				ADULTHOOD
GROWTH RATE	RAPID	RAPID GROWTH STEADY GROWTH ADOLESCENT SPURT DECLINE IN GROWTH							WTH RATE											
MATURATIONAL STATUS		YEARS PRE-PHV ————————————————————————————————————																		
TRAINING ADAPTATION	PREC	EDOMINANTLY NEURAL (AGE-RELATED) COMBINATION OF NEURAL AND HORMONAL (MATURITY-RELATED)																		
	F	MS	6		F١	MS FMS				FMS										
		sss			sss SSS				SSS											
	м	obilit	ty	Mobility				Mobility												
	A	Agility	/		Agility				Agility Agi				gilit	:y						
PHYSICAL QUALITIES	s	peed	ı			S	реє	ed			Speed					Speed				
_	F	owe	r			P	ow	er				Р	ow	er				Power		
	Str	eng	gth			Str	en	gth				St	ren	gth				Str	en	gth
<u> </u>					Hyper	trophy	¥				Нуре	rtrophy		н	уре	ertr	opi	ıy		Hypertrophy
	Endur	rance (& MC			E	ndurar	nce & P	ис		Endurance & MC				Endurance & MC					
TRAINING STRUCTURE	UN	STRU	CTUR	RED	ı	ow:	STRU	CTUR	E	I	MODERATE HIGH STRUCTURE			URE	VERY HIGH STRUCTURE					

Performance Pyramid (Abraham et al., 2015)

Fundamental Movement Skills

Stability (e.g. Balance, BW squat, Landing Technique)
Locomotion (e.g. Running, Jumping Technique)
Mobility (required range of motion for sport)

Performance Pyramid (Abraham et al., 2015)



Performance Pyramid (Abraham et al., 2015)

Improved Sport Participation & Performance

Speed

Power

Strength



Related to all other physical characteristics

Agility

Work

Fundamental Movement Skills

Stability (e.g. Balance, BW squat, Landing Technique)
Locomotion (e.g. Running, Jumping Technique)
Mobility (required range of motion for sport)

Strength in Youth Football



Influence of Age and Maturation on **Strength**, Speed and Power in Youth Soccer

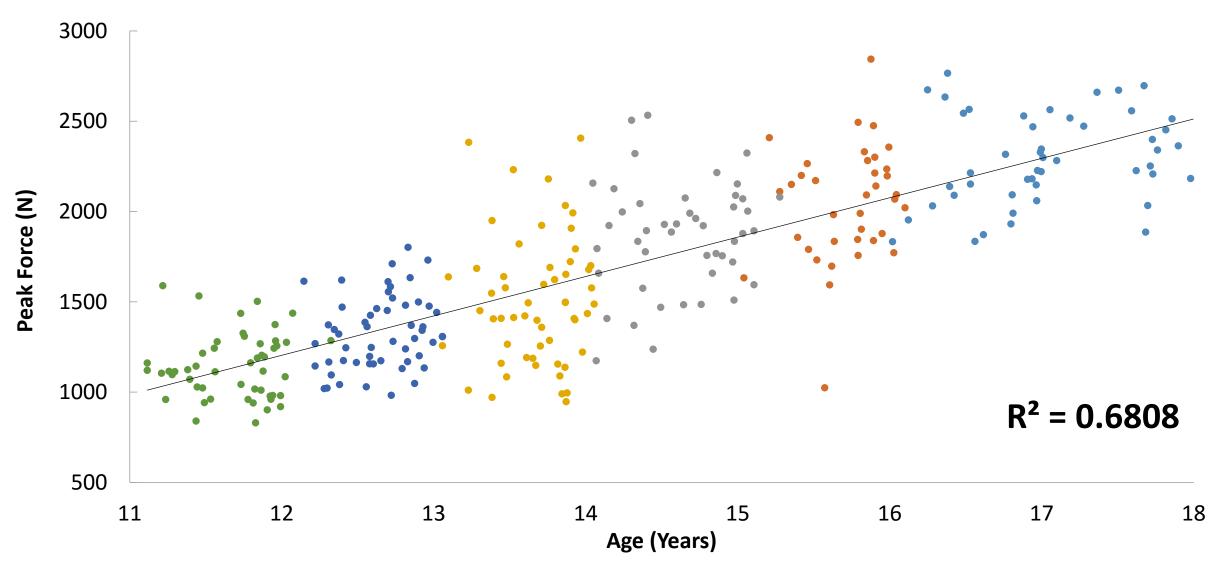
Assessed 293 Youth Soccer Players aged 12-18 years from 4 academies

Strength Assessment = Isometric Mid Thigh Pull

- Peak Force
- Relative Peak Force (considering body mass)

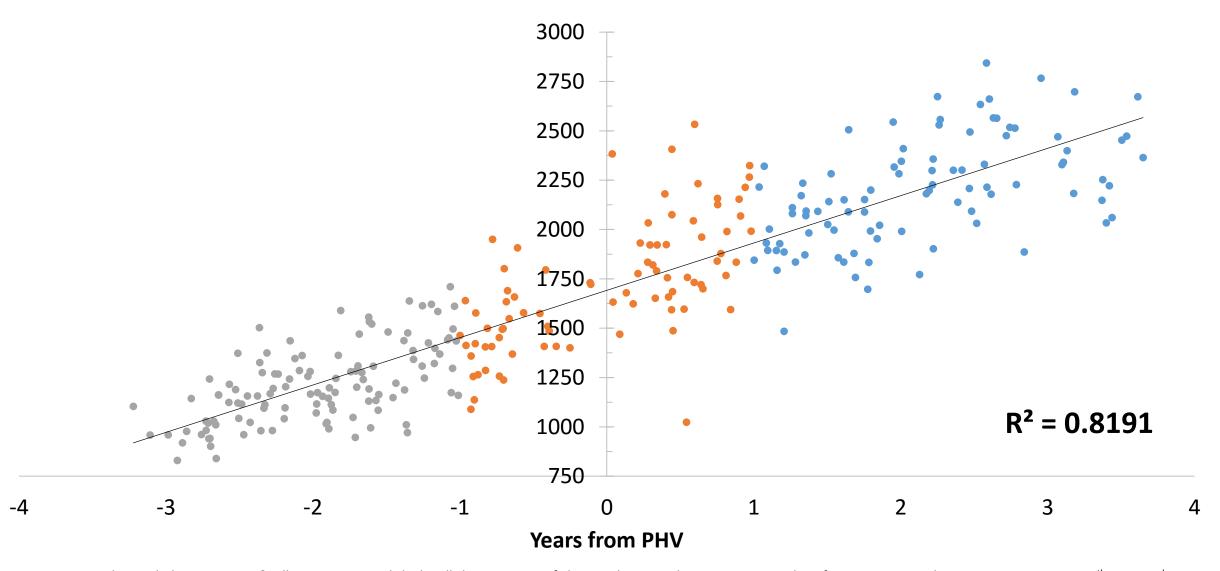


Strength (Peak Force) vs. Age

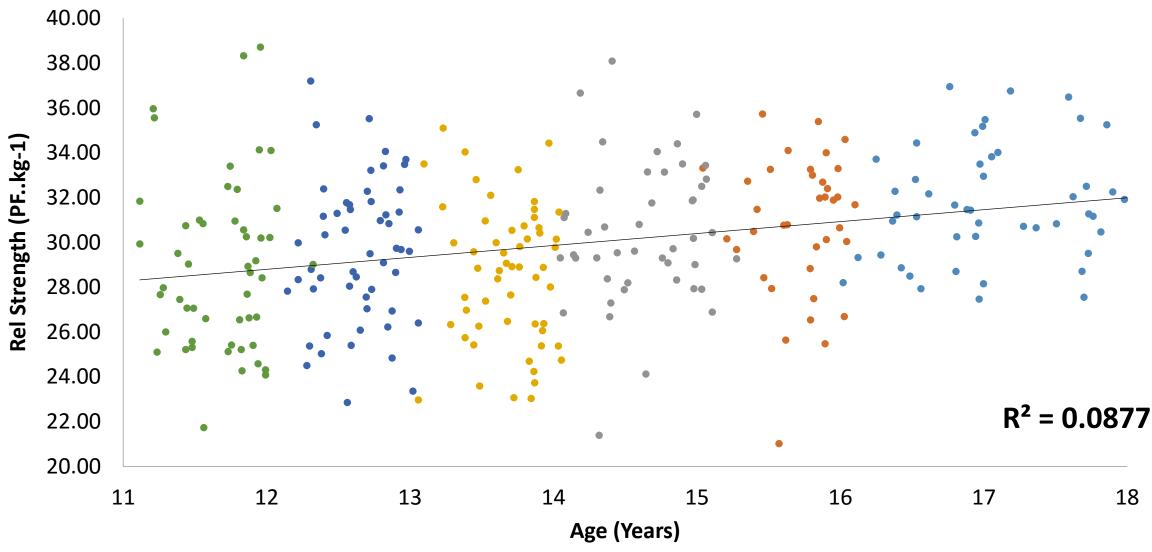


Morris, R., Jones, B., Lake, J., Clarke, N., Low, C. & Till, K. Isometric mid-thigh pull characteristics of elite youth soccer players. International Conference on Strength Training, Kyoto, Japan, 30th Nov – 2nd Dec 2016.

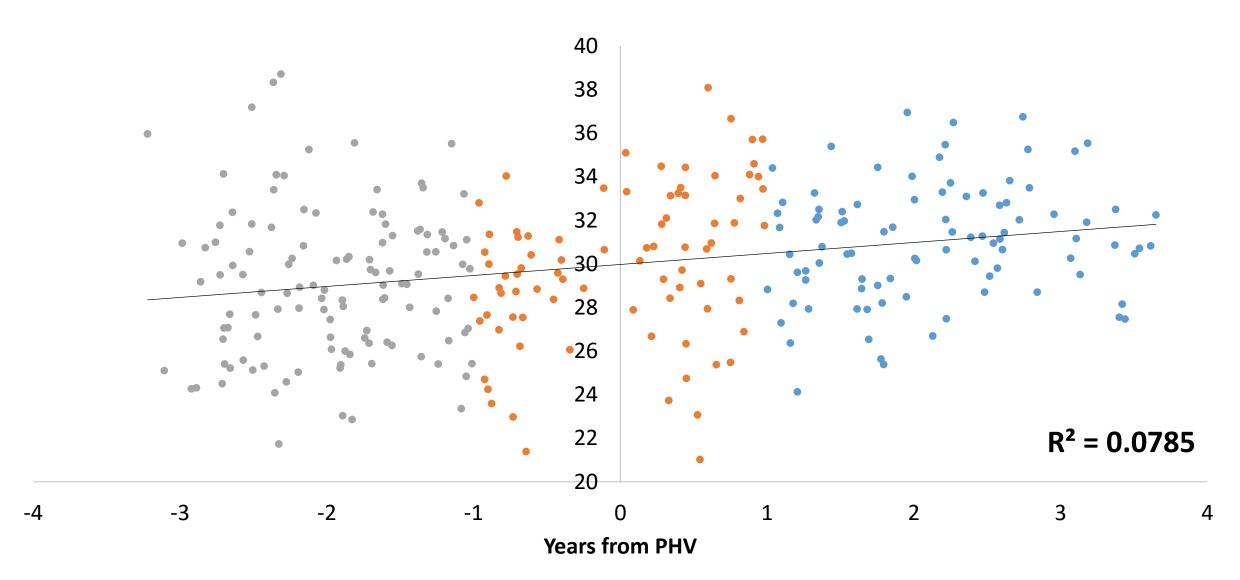
Strength (Peak Force) vs. Maturation



Relative Strength vs. Age



Relative Strength vs. Maturation



Predictors of Speed, Agility & Power

Variables	Predictors
20m Sprint	1. Age
	2. Height
	3. Relative Strength
Agility 505 L	1. Years from PHV
	2. Relative Strength
Agility 505 R	1. Age
	2. Relative Strength
	3. Height
Vertical Jump	1. Age
	2. Relative Strength

- Speed, agility and power performance in by factors related to age, maturation and relative strength qualities
- Practitioners should understand the impact of growth and maturation upon physical performance
- Young soccer players should undertake strength training interventions, especially when large body mass increases are likely, to develop relative strength

Conclusions

- Physical characteristics are important aspects for football performance
 - = Clear Performance Model
- Large variations in maturation status of youth players, which impacts upon physical performance
- Physical performance in young ages should not be used for Talent ID but should be implemented for long-term development
- Strength is important especially Relative Strength! Implement resistance training interventions with youth players



THE INFLUENCE OF AGE AND MATURATION ON THE PHYSICAL CHARACTERISTICS OF YOUTH FEMALE SOCCER PLAYERS



"One of the big challenges in the women's game is just developing athleticism," Campbell told BBC Sport.

"It is not technical and tactical - [in those aspects] they are probably as good as anybody in the world.

"But that athleticism that you see in the American players or the Germans is a very different type of athleticism, power and agility. We have got a long way to go.





England Talent Pathway



England Talent Pathway

Sports Med (2014) 44:1225-

REVIEW ARTICLE

DOI 10.1007/s40279-014-019 IMPORTANCE OF PHYSICAL QUALITIES FOR SPEED AND CHANGE OF DIRECTION ABILITY IN ELITE FEMALE SOCCER PLAYERS.

f elite female soccer players during international

External Links 2

Applied Physic

Emmonds, S*1, G.Nicholson1, C.Beggs1, B.Jones1 and A. Bissas1

Journal of Strength and Conditioning Research

Naomi Datson · Andrev Tracy Lewis · Matthew Warren Gregson

ABSTRACT

Published online: 7 May 201 © Springer International Publ

Abstract The popularit soccer has increased ma players now employed of cal demands of female so research coupled with on physical performance demands of match-play a fatigue have been explore completed at high-spee sprinting than moderate-l speed running distance within halves, which may high-intensity activity. A

The purpose of this study was to determine the importance of physical qualities for 26 |ul 2016] speed and change of direction (CoD) ability in female soccer players. Data were collected on 10 female soccer players who were part of a professional English professional basis. The p Women's Super League team. Player assessments included anthropometric (stature ago when the sport was and body mass), body composition (dual-energy X-ray absorptiometry), speed (10m, demands warrants an upd 30m sprint), CoD ability (505 agility), aerobic (Yo-Yo Intermittent Recovery Test), such as the standard of (lower-body strength (bilateral knee extensions) and power (countermovement iump female players is appr [CMJ], squat jump [SJ], 30cm drop jump [DJ]) measures. The relationships between complete 28 % more hig the variables were evaluated using eigenvector analysis and Pearson correlation analysis. Multiple linear regression revealed that the performance variables (10 and 20m speed, mean 505, and CoD deficit mean) can be predicted with almost 100%

P, Gregson W

Related Articles

ovide a detailed analysis of the physical demands of competitive otal of 148 individual match observations were undertaken on 107 nternational matches during the 2011-2012 and 2012-2013 seasons, zone Sports Ltd., Leeds, England). Total distance (TD) and total highenced by playing position, with central midfielders (CM) completing i) and central defenders (CD) the lowest (9489±562 m and 1901±268 y high-speed running (TVHSR) distances were completed when a o with (313±210 m) possession of the ball. The majority of sprints 5 % being less than 5 m and 10 m, respectively. Between half resent for all variables, independent of playing position. The current : physical demands of different playing positions in competitive les important insights for physical coaches preparing elite female

N. Datson (⋈) · T. Lewis

The English Football Association, St. George's Park,

in 1991. The popularity of women players for competition.

England Talent Pathway



English female footballers 'need more athleticism' says FA's Baroness Campbell

By Tom Garry BBC Sport

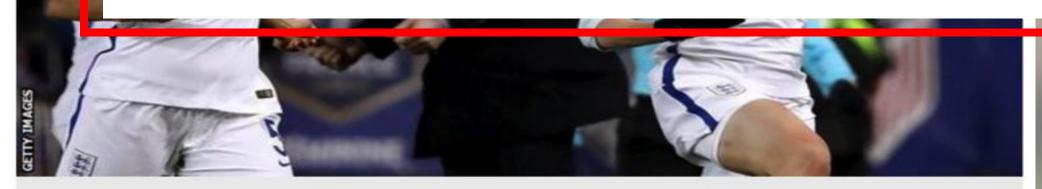
O 15 Mar

"One of the big challenges in the women's game is just developing athleticism," Campbell told BBC Sport.

"It is not technical and tactical - [in those aspects] they are probably as good as anybody in the world.

"But that athleticism that you see in the American players or the Germans is a very different type of athleticism, power and agility. We have got a long way to go.

"We need to build it in much earlier. We can't suddenly do that. We need to be working with players much earlier on."



England Talent Pathway



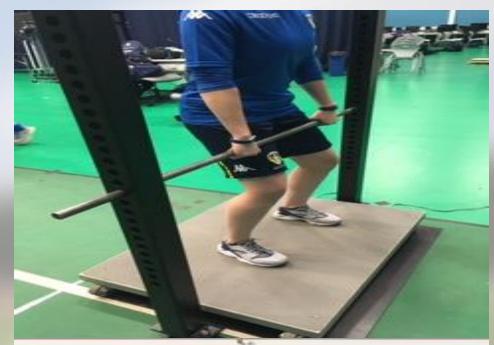




Physical Characteristics of Elite Female Soccer Players

- 3 Tier 1 Regional Talent Centre's (RTC's)
- 157 Players
- (U16; n =46, U14; n =43, U12; n=28, U10; n=30)
- Testing Battery:
- -Anthropometry (height, body mass)
- - Strength (Isometric mid-thigh pull)
- -Lower body power (CMJ)
- -Change of direction (505 left and right)
- -YoYo Intermittent recovery level 1 (YYIRL1)

- -Speed (10 and 30m)
- - Aerobic capacity (YYIRL1)



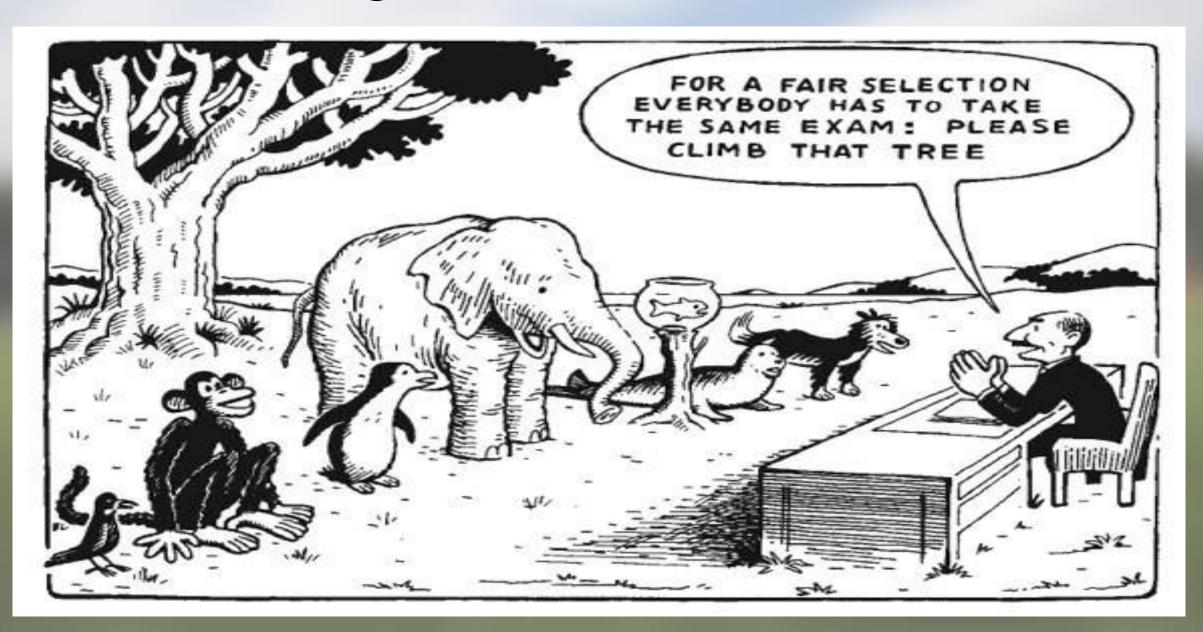


Physical characteristics of youth female soccer players

					Stan	dardised Differences	s (d)
	U10 (n=30)	U12 (n=38)	U14 (n=43)	U16 (n=46)	U10-U12	U12-U14	U14-U16
Age (y)	9.25 ± 0.58	11.41 ± 0.98	13.22 ± 0.65	15.05 ± 0.64	Most Likely ↑	Most Likely ↑	Very Likely ↑
Height (cm)	134.7 ± 8.1	147.2 ± 8.5	159.2 ± 7.4	163.9 ± 6.2	Most Likely ↑	Most Likely \uparrow	Very Likely ↑
Body Mass (kg)	29.7 ± 5.1	37.6 ± 8.0	50.1 ± 7.6	56.8 ± 7.2	Most Likely ↑	Most Likely ↑	Very Likely ↑
Peak Force (N)	819 ± 135	1019 ± 193	1337 ± 234	1511 ± 196	Most Likely \uparrow	Most Likely ↑	Most Likely ↑
Relative Peak Force (N·s ⁻¹ ·kg ⁻¹)	26.9 ± 4.2	26.1 ± 2.5	26.5 ± 4.2	26.7 ± 2.5	Possibly Trivial	Possibly Trivial	Most Likely Trivial
CMJ (cm)	23.5 ± 2.5	27.3 ± 4.3	29.1 ± 4.4	31.4 ± 6.4	Very Likely ↑	$Likely \uparrow$	Very Likely ↑
YYIRL1 (m)		635 ± 241	886 ± 334	959 ± 399		Most Likely \uparrow	$Possibly \uparrow$
505 CoD Dominant (s)	2.78 ± 0.15	2.71 ± 0.16	2.60 ± 0.10	2.54 ± 0.12	$\textit{Very Likely} \downarrow$	$\mathit{Likely} \downarrow$	Most Likely \downarrow
505 CoD Non-Dominant (s)	2.82 ± 0.11	2.73 ± 0.15	2.66 ± 0.13	2.53 ± 0.09	$\textit{Very Likely} \downarrow$	$Likely \downarrow$	$Very\ Likely\ \downarrow$
10m Speed (s)	2.24 ± 0.13	2.10 ± 0.16	2.06 ± 0.13	1.96 ± 0.14	Most Likely \downarrow	$Possibly \downarrow$	$Very\ Likely\ \downarrow$
30m Speed (s)	5.75 ± 0.31	5.19 ± 0.33	5.01 ± 0.28	4.81 ± 0.24	Most Likely ↓	$Possibly \downarrow$	Very Likely↓

Emmonds et al. (unpublished) Physical characteristics of youth female soccer

The influence of growth and maturation



Influence of maturation on the physical characteristics of players

	-2.5	-1.5	-0.5	0.5	1.5	2.5
	(n = 24)	(n = 30)	(n = 19)	(n = 22)	(n = 36)	(n = 27)
Age (y)	9.16 ± 0.61	10.70 ± 0.62	11.87 ± 0.31	12.83 ± 0.67	14.01 ± 0.65	15.19 ± 0.67
Height (cm)	131.9 ± 6.3	142.4 ± 4.4	151.1 ± 4.5	157.4 ± 4.8	162.2 ± 4.4	165.8 ± 6.9
Sitting Height (cm)	67.3 ± 3.2	70.9 ± 2.9	74.8 ± 2.8	78.7 ± 2.9	82.2 ± 2.6	84.4 ± 3.9
Leg Length (cm)	64.6 ± 4.4	71.5 ± 3.6	76.4 ± 3.5	78.8 ± 2.8	80.0 ± 3.8	81.4 ± 4.1
Body Mass (kg)	28.3 ± 4.5	33.4 ± 3.8	40.5 ± 4.9	49.0 ± 5.0	54.9 ± 5.1	57.5 ± 7.5
Peak Force (N)	729 ± 105	880 ± 112	1093 ± 171	1206 ± 223	1391 ± 196	1523 ± 207
Relative Peak Force (N·Kg ⁻¹)	26.16 ± 4.22	26.44 ± 2.89	27.13 ± 4.24	24.62 ± 3.70	25.36 ± 2.73	26.68 ± 3.66
CMJ (cm)	23.46 ± 4.86	25.96 ± 4.44	28.64 ± 3.84	29.61 ± 3.52	28.63 ± 3.87	33.42 ± 4.33
10 m Sprint (s)	2.22 ± 0.13	2.21 ± 0.17	2.00 ± 0.12	2.08 ± 0.16	1.99 ± 0.14	1.98 ± 0.15
30 m Sprint (s)	5.75 ± 0.34	5.40 ± 0.64	5.09 ± 0.21	4.98 ± 0.47	4.90 ± 0.26	4.81 ± 0.27
505 CoD Dominant (s)	2.99 ± 0.39	2.73 ± 0.19	2.69 ± 0.15	2.69 ± 0.20	2.61 ± 0.15	2.54 ± 0.11
505 CoD N-Dominant (s)	3.03 ± 0.41	3.76 ± 0.19	2.71 ± 0.12	2.71 ± 0.17	2.64 ± 0.16	2.53 ± 0.08
YYIRL (m)		668 ± 284	716 ± 234	897 ± 404	888 ± 288	952 ± 320

Emmonds et al. (2017). The influence age and maturation of the maximum and explosive strength qualities of elite youth female soccer players. Medicine and science in football

Influence of maturation on the physical characteristics of players

	•	Maturity O	ffset Groups (YPHV) cor	nparisons	
	-2.5 <i>vs.</i> -1.5	-1.5 <i>vs.</i> -0.5	-0.5 <i>vs.</i> 0.5	0.5 vs. 1.5	1.5 vs. 2.5
Age (y)	Most Likely (-2.50 ± 0.62)	<i>Very Likely</i> (-2.39 ± 0.65)	Most Likely (-1.84 ± 0.64)	Most Likely (-1.79 ± 0.54)	Most Likely (-1.79 ± 0.50)
Height (cm)	<i>Most Likely</i> (-1.92 ± 0.56)	Most Likely (-1.96 ± 0.60)	<i>Most Likely</i> (-1.36 ± 0.59)	<i>Most Likely</i> (-1.04 ± 0.49)	Very Likely (-0.62 ± 0.44)
Sitting Height (cm)	Most Likely (-1.17 ± 0.50)	Most Likely (-1.35 ± 0.55)	<i>Most Likely</i> (-1.36 ± 0.59)	<i>Most Likely</i> (-1.29 ± 0.50)	Very Likely (-0.68 ± 0.44)
Leg Length (cm)	<i>Most Likely</i> (-1.71 ± 0.54)	<i>Very Likely</i> (-1.37 ± 0.55)	<i>Likely</i> (-0.77 ± 0.55)	<i>Possibly</i> (-0.37 ± 0.46)	$Possibly \\ (-0.34 \pm 0.43)$
Body Mass (kg)	Most Likely (-1.23 ± 0.50)	Most Likely (-1.61 ± 0.57)	Most Likely (-1.71 ± 0.62)	<i>Very Likely</i> (-1.17 ± 0.50)	<i>Likely</i> (-0.41 ± 0.43)
Peak Force (N)	<i>Most Likely</i> (-1.39 ± 0.51)	<i>Most Likely</i> (-1.47 ± 0.56)	<i>Likely</i> (-0.57 ± 0.55)	<i>Very Likely</i> (-0.88 ± 0.48)	<i>Very Likely</i> (-0.66 ± 0.44)
Relative Peak Force (N·Kg ⁻¹)	<i>Unclear</i> (-0.08 ± 0.46)	<i>Unclear</i> (-0.19 ± 0.50)	<i>Likely</i> (0.63 ± 0.55)	<i>Unclear</i> (-0.23 ± 0.46)	<i>Possibly</i> (-0.41 ± 0.43)
CMJ (cm)	<i>Likely</i> (-0.54 ± 0.47)	<i>Likely</i> (-0.65 ± 0.51)	<i>Unclear</i> (-0.26 ± 0.54)	<i>Possibly</i> (0.26 ± 0.46)	Most Likely (-1.17 ± 0.46)
10 m Sprint (s)	<i>Unclear</i> (0.07 ± 0.46)	Most Likely (1.43 ± 0.56)	<i>Likely</i> (-0.57 ± 0.54)	<i>Likely</i> (0.60 ± 0.47)	$\begin{array}{c} \textit{Unclear} \\ (0.07 \pm 0.43) \end{array}$
30 m Sprint (s)	<i>Very Likely</i> (0.68 ± 0.47)	<i>Likely</i> (0.65 ± 0.51)	Possibly (0.30 ± 0.54)	$Unclear \\ (0.21 \pm 0.46)$	Possibly (0.34 ± 0.43)
505 CoD Dominant (s)	<i>Likely</i> (0.85 ± 0.48)	<i>Unclear</i> (0.23 ± 0.50)	$Unclear \\ (0.00 \pm 0.53)$	Possibly (0.45 ± 0.47)	<i>Likely</i> (0.53 ± 0.43)
505 CoD N-Dominant (s)	<i>Very Likely</i> (0.84 ± 0.48)	<i>Possibly</i> (0.31 ± 0.50)	<i>Unclear</i> (0.00 ± 0.53)	Possibly Trivial (0.42 ± 0.47)	<i>Very Likely</i> (0.87 ± 0.45)
YYIRL (m)		<i>Unclear</i> (-0.18 ± 0.50)	<i>Likely</i> (-0.55 ± 0.54)	<i>Unclear</i> (0.03 ± 0.46)	<i>Unclear</i> (-0.21 ± 0.43)

Emmonds et al. (2017). The influence age and maturation of the maximum and explosive strength qualities of elite youth female soccer players. Medicine and science in football

Physical characteristics of youth female soccer players

								(8
	Percentile	-2.5	-1.5	-0.5	0.5	1.5	2	
10m	Excellent	<2.02	1.99	1.87	1.91	1.83	1.	
Speed (s)	Above Average	2.20	2.11	1.91	2.00	1.90	1.	
	Average	2.26	2.19	1.97	2.04	2.00	1.	
	Below Average	2.30	2.29	2.07	2.11	2.06	2.	YYIRI (m)
	Poor	2.34	2.44	2.17	2.29	2.29	2.	
30m	Excellent	5.33	5.22	4.88	4.82	4.60	4.	
Speed (s)	Above Average	5.50	5.30	5.03	4.97	4.73	4.	
	Average	5.74	5.47	5.11	5.11	4.86	4.	
	Below Average	5.98	5.67	5.23	5.29	5.04	4.9	97
	Poor	6.14	5.84	5.36	5.42	5.26	5.0	05
CMJ	Excellent	28.3	30.20	33.1	33.5	33.8	33	3.0
(cm)	Above Average	25.5	28.08	30.94	32.3	31.2	31	.4
	Average	21.5	25.60	28.4	30.1	28.8	28	3.5
	Below Average	20.1	23.20	26.73	26.1	26.7	26	5.5
	Poor	18.9	21.02	24.44	25.2	23.9	22	2.8

	Percentile	-2.5	-1.5	-0.5	0.5	1.5	2.5
COD (s)	Excellent	2.68	2.57	2.52	2.51	2.45	2.43
	Above Average	2.74	2.65	2.60	2.56	2.54	2.50
	Average	2.87	2.76	2.69	2.65	2.60	2.56
	Below Average	2.96	2.81	2.78	2.73	2.73	2.68
	Poor	3.64	3.01	2.86	2.96	2.83	2.71
Relative Strength	Excellent	30.10	29.42	32.84	29.11	28.77	31.32
(N.Kg-1)	Above Average	28.19	28.21	28.28	26.02	26.46	27.53
	Average	26.23	27.10	26.22	23.21	25.30	25.70
	Below Average	24.74	25.39	25.68	22.17	24.10	24.55
	Poor	20.30	22.19	23.08	20.98	22.04	23.66
YYIRL1	Excellent		1016	956	1456	1228	1464
(m)	Above Average		937	840	1120	992	1032
	Average		784	740	720	840	840
	Below Average		468	564	590	728	800
	Poor		352	440	480	572	600
97							

Youth vs. Senior Characteristics

Fitness Characteristics	Senior (WSL 1) Emmonds et al. (2017)	U16	2.5 YPHV	Difference between senior and youth
10m Speed (s)	1.87 ± 0.06	1.96 ± 0.14	1.98 ± 0.15	0.09-0.11s
30m Speed (s)	4.52 ± 0.10	4.81 ± 0.24	4.81 ± 0.27	0.29s
CMJ (cm)	34.9 ± 4.4	31.4 ± 6.4	33.4 ± 4.2	1.5 - 3.5cm
505-Dom (s)	2.53 ± 0.09	2.54 ± 0.12	2.54 ± 0.11	0.01s
505-N.Dom (s)	2.52 ± 0.09	2.53 ± 0.10	2.53 ± 0.08	0.01s
YYIRL1 (m)	1680 ± 260	959 ± 399	952 ± 320	721 – 728m

Emmonds et al. (2017) Importance of physical qualities for speed and change of direction in elite senior female soccer players. Journal of Strength and Conditioning Research

How do we bridge the gap from youth to senior soccer?



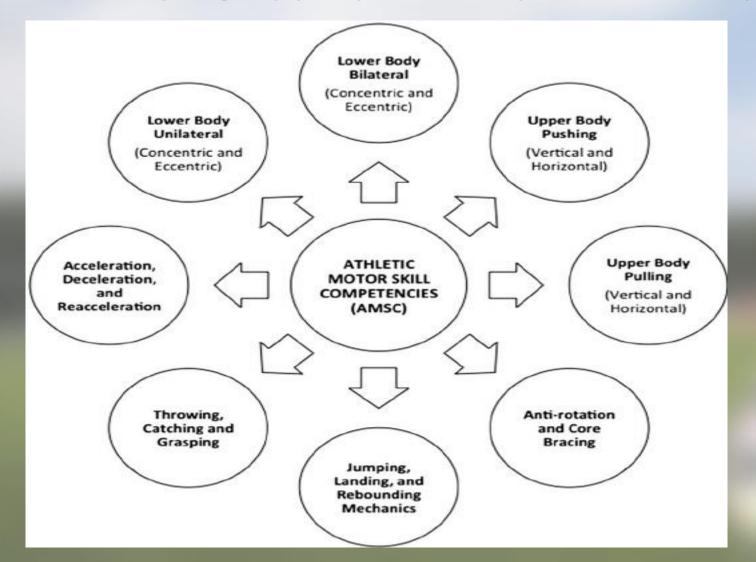


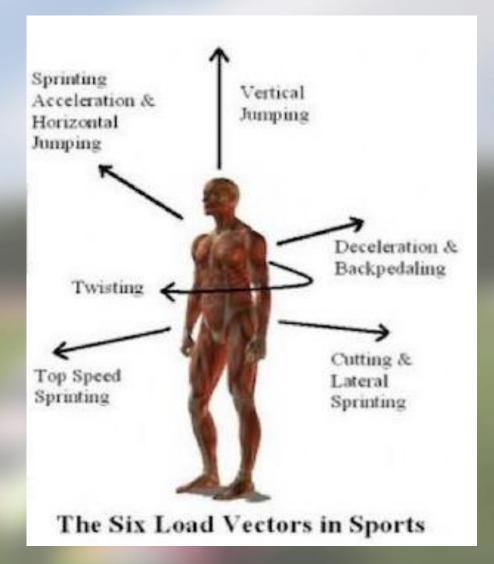
Relationship between speed, change of direction ability and lower body power in youth female soccer players: Allometric scaling

Variables	Predictors	β	R ²	P
10m Speed (s)	30m.kg	1.226	0.870	<0.001
	505 Dom.kg	-0.210		
	CMJ.kg	-0.211		
	YPHV	0.139		
30m Sprint (s)	10m.kg	0.635	0.996	<0.001
	CMJ.kg	-0.234		
	YPHV	0.194		
	505 Dom.kg	-0.129		
CoD Dominant (s)	YPHV	0.559	0.449	< 0.001
	PF.kg	-0.424		
CoD N-Dominant (s)	YPHV	-0.293	0.216	< 0.001
	PF.kg	-0.226		
CMJ (cm)	YPHV	0.582	0.401	< 0.001
	PF.kg	0.268		



Developing Appropriate Physical Development Models





Lloyd et al. (2015) Long-term athletic development, part 2: barriers to success and potential solutions. *The Journal of Strength & Conditioning Research*, 29(5), 1451-1464.

Developing Appropriate Physical Development Models

	Table 2 An example of a possible model for monitoring and progressing key elements of neuromuscular training for girls										
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
Squat BL	Assisted squat	BW squat	Overhead squat	Overhead squat 10% BW	Overhead squat 25% BW	Snatch 25% BW					
Squat UL	_	_	Assisted single leg squat	Single leg squat	Advanced single leg squat	Single arm single leg KB snatch					
Lunge (forward)	From floor to stand	Forward lunge	A-stand forward lunge	Lunge walk + rotations (forward/backward)	Lunge matrix + perturbations	Lunge in context/CHAOS					
Lunge (lateral)	Side lunge half depth	Side lunge to A- stand	Side lunge A- stand full	With ball throw	Lateral speed to lunge deceleration	Lunge in context/CHAOS					
Bear crawl	Quadruped arm leg	Static bear crawl	Forward 5 m	Backward 5 m	Grid (forward/ backward/side)	In CHAOS					
Upper- body push pull	Trunk stability push-up (knees) and lying pulls— bridge	Lying pull and trunk stability push-up	Wide grip chin ×1 (band assisted)	Wide grip chin ×1	Chins full ×5	Chins ×5 + 10% BW					
Jump land (BL)	BL drop and stick 15 cm	BL drop and stick 30 cm	Drop jump 30-cm box	Tuck jump ×3	Tuck jump ×10	Quality control and error correction in CHAOS					
Jump land (UL)	_	_	UL stride and stick 100% height	UL stride and stick 100% height + 90° rotation	Drop/cross step— double stride then stick	Error correction under a variety of perturbations					

These can be assessed using the scale in Figure 1 but also include elements of other assessment tools such as the drop (23) and tuck jump assessments (40).

BL = bilateral; BW = body weight; UL = unilateral; CHAOS = chaotic environments; KB = kettlebell.

Wright, M. D., & Laas, M. M. (2016). Strength training and metabolic conditioning for female youth and adolescent soccer players. *Strength & Conditioning Journal*, *38*(2), 96-104.

Summary

- Growth and maturation influences the physical characteristics of youth female players
- Relative strength does not increase with maturation: need to develop this, particularly post-PHV where female experience large increase in body mass and likely fat mass
- Unclear changes were observed in aerobic capacity after PHV: need to actively develop the aerobic system in players post-PHV
- Relative strength is a predictor of speed and change of direction
- ability in youth female soccer players

Future Research Direction

- Longitudinal tracking of physical characteristics
- Match characteristics
- Training Loads
- Training Interventions



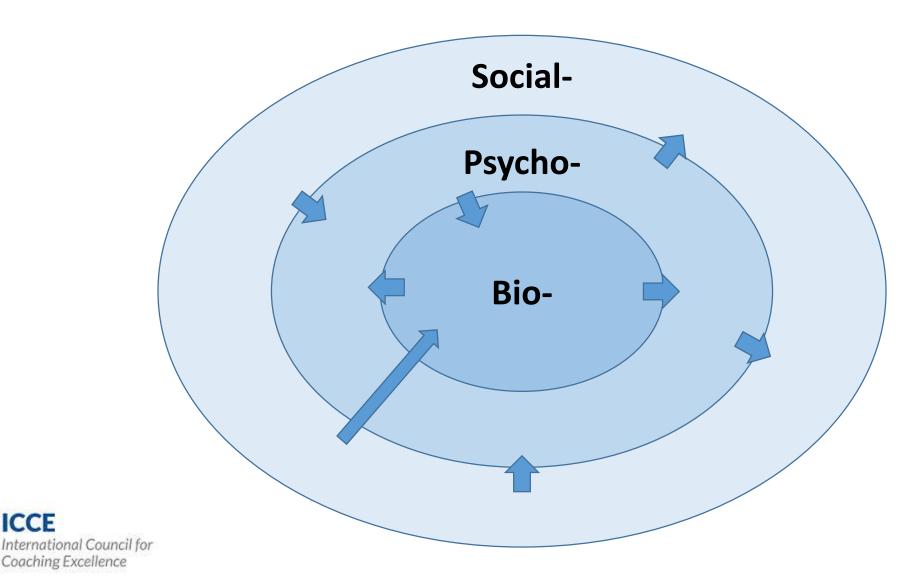
Considering the Role of Psychology Within a TD Social Setting

Dr Andrew Abraham (@AndrewAbraham11)

Dr Tom Mitchell (@tom_mitch3)

Sport Coaching Group, Leeds Beckett University

Bio-Psycho-Social Ontology





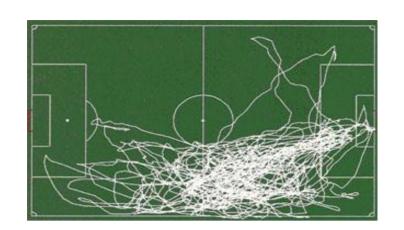


Real world understanding











Transitions

(Adapted from Wylleman, Alfermann & Lavallee, 2004)

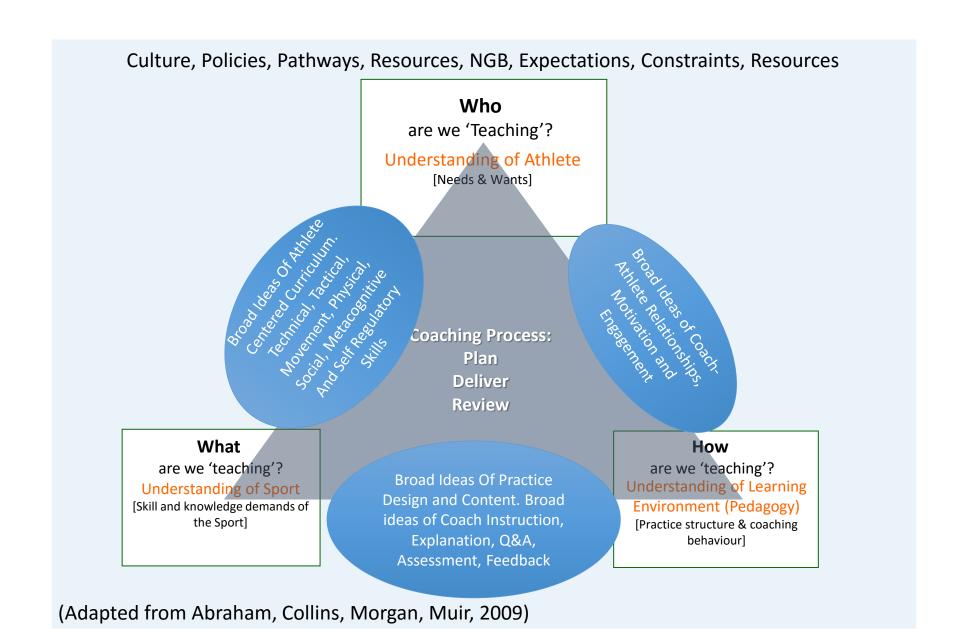
	0 - 4	5 - 9	1	.0 - 14	1	5 - 19	9	20 - 24	25 - 29	30 -
Athletic Level		Initiat	ion	De	velopm	ent		Mas	stery	Discontinuation
Psychological	Early	Midd	e	Early	Mid	and	Late			
Level	Childho	od Childho	ood A	dolescence	Ado	lesce	nce		Adultho	ood
		Pre-		Puberty						
Biological		puber	ty /	Adolescent	Post	Pub	erty			
Level		Stead	У	Growth	De	cline	in			
		Grow	th	Spurt	Gro	wth F	Rate			
Psycho-Social Level	Parent	s - Siblings -	Peers	Peers - 0	Coach ·	- Pare	ents	Partner	- Coach	Family - Coach
Academic							Furth	er/Higher	Vocationa	I Training and/or
Level		Primary	,	Secondary/	Furthe	r	Ed	ucation	Professi	onal Education
		Foundation	on			Р	rofessi	onal		
Academy		Phase. U	5 -	Youth		De	evelop	ment		
Stage and		U11		Developme	ent	Pha	se. U1	7 - U21		
Registration		1 Year		Phase. U12 -	U16	Р	rofessi	onal		
Period		Registrati		Year Registr			Contra			
1 61164		Potential	for	Potential f	or	P	otentia			
		release		release			relea	se	Senior F	Professional
Game Size			(9	v 9 at u12 if	f both					
Gairie Size		4 v 4 - 9 v	9 cl	ubs agree) 1	1 v 11				11 v 11	

Coaching As Professional Judgement and Decision Making

Theoretical View	Summarised D	escription of What	Happens
Common	Plan/Review	Do	
Perception			
Decision	Analytic	Rule Based	Automatic/Intuitive
Modes (Yates &	(Formalistic	(Formalistic or	
Tschirhart,	or	Substantive)	
2006)	Substantive)		

(Abraham, Collins & Collins, in preparation)

The Who What How in Context Principle

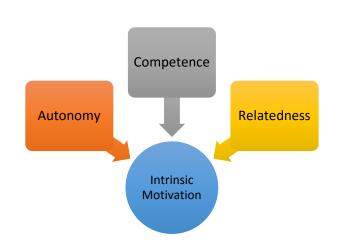


What thinking tools exist for coaches?

Stage	Basic Conflict	Important Events	Outcome
Infancy (birth to 18 months)	Trust vs. Mistrust	Feeding	Children develop a sense of trust when caregivers provide reliability, care, and affection. A lack of this will lead to mistrust.
Early Childhood (2 to 3 years)	Autonomy vs. Shame and Doubt	Toilet Training	Children need to develop a sense of personal control over physical skills and a sense of independence. Success leads to feelings of autonomy, failure results in feelings of shame and doubt.
Preschool (3 to 5 years)	Initiative vs. Guilt	Exploration	Children need to begin asserting control and power over the environment. Success in this stage leads to a sense of purpose. Children who try to exert too much power experience disapproval, resulting in a sense of guilt.
School Age (6 to 11 years)	Industry vs. Inferiority	School	Children need to cope with new social and academic demands. Success leads to a sense of competence, while failure results in feelings of inferiority.
Adolescence (12 to 18 years)	Identity vs. Role Confusion	Social Relationships	Teens need to develop a sense of self and personal identity. Success leads to an ability to stay true to yourself, while failure leads to role confusion and a weak sense of self.
Yound Adulthood (19 to 40 years)	Intimacy vs. Isolation	Relationships	Young adults need to form intimate, loving relationships with other people. Success leads to strong relationships, while failure results in loneliness and isolation.

Table 1 Health Education TFSR levels

Level	Description
Level 1: Self-control	Respecting the rights and feelings of others, maintaining appropriate behavior and language in class
Level 2: Self-responsibility	Participating in class discussions, making an effort in classroom assignments, coming to class prepared
Level 3: Self-direction	Developing personal health plans and goals, thinking and acting independent of peers
Level 4: Leadership	Having positive attitudes and behaviors, helping others learn healthy behaviors and being a positive influence
Level 5: Out of the classroom	Using health applications in life, caring about and helping family members and friends





Coaching Psychological Skills in Youth Football

Developing The 5Cs

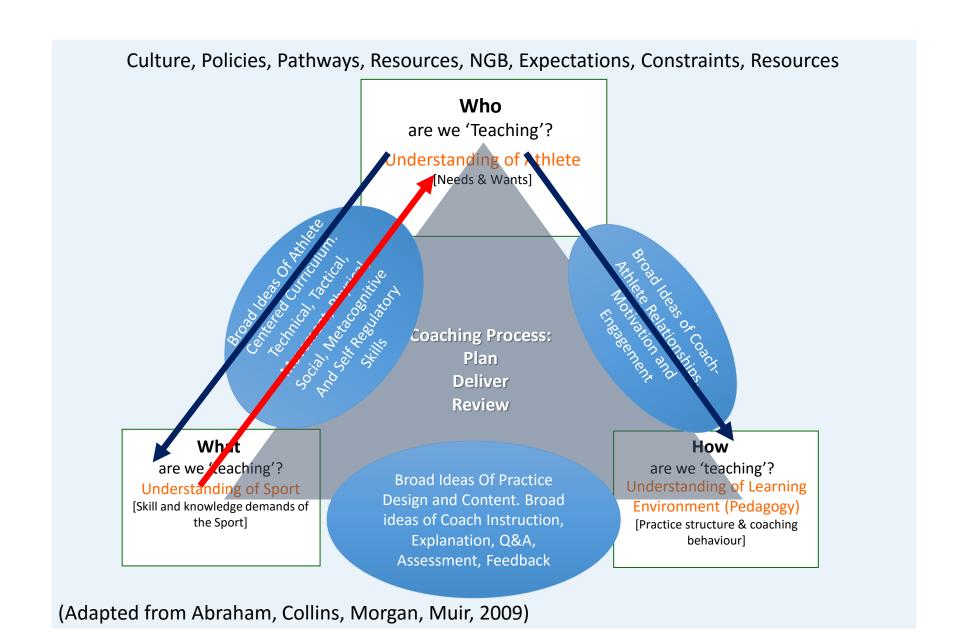
Chris Harwood Richard Anderson

PYD:

- Confidence,
- Competence,
- Character,
- Connection,
- Caring(Lerner, 2005)



The Who What How in Context Principle



Is Psychology Content...

- Descriptive and diagnostic?
 - I need to know my players?
 - So what questions should he or she ask?
- Prescriptive and circularised?
 - My players should be able to..
 - Therefore they need...
- Are we being thoughtful enough about what coaches need?

What Could Be Known and Why?

Psychology (Ψ) is fundamentally interested in behaviour through:

- Development and growth
- Learning
- Health
- Performance

All are important to people operating in football but to differing levels at different times dependent on context

Educators educating educators places great emphasis on the need to practice what they preach

Who: ♥ To Understand The Player In TD Setting What Could Be Known...

Player As Healthy Growing Individual

Player As Learner & Trainer

Player As Team Member, Performer & Competitor

- Identity
- Personality
- Motivation
- Developmental Ψ
- Morality/Character
- Coping/Thriving

- Self Regulation
- Metacognition
- Excellence Behaviours
- Growth Mindset
- Motivation
- Personality
- Development Psych

- Self Regulation
- Excellence Behaviours
- Dealing With Pressure
- Personality
- Motivation
- Group Dynamics
- Perception & DM

Area of Curiosity

- How well prepared are the FA in supporting coaches in the U11 U13s age groups?
- Period of change and transitions
- Was this period of change sufficiently well accounted for in support and delivery?

Broad Aim

 To assess whether more could be done to support coaches for the U11-U13 age groups through individualised support and CPD, particularly as provided by the FAYCD group.

Theoretical background

- Coaching as PJDM
 - How well prepared are coaches to make judgements of creating better players
 - Knowledge and Understanding of the Player (Who)
 - Knowledge and Understanding of the Sport and Curriculum (What)
 - Knowledge and Understanding of Pedagogy (How)
 - Knowledge and Understanding of The Context (Where)
 - Knowledge and Understanding of Self
 - Knowledge and Understanding of The Process and Practice of Coaching
- Expertise
 - Context specific vs Adaptive
 - Focus was on context specific (U11-U13)

Methods

- 8 Clubs
 - 3 x Category 1
 - 3 x Category 2
 - 2 x Category 3
- Interviews with
 - Senior staff
 - Age group coaches

Transitions

- Largest single point of data
- Recognition of the fact that numerous transitions are occurring; school, team size, expectation, bio-psycho-social, different coach, time in academy (including shift to day release).
- The greatest focus in this recognition was around the move from U11 U12 (aligned with primary to secondary school) and the significant extra physical (bio) demands of moving from 9v9 to 11v11 team size
- "Then, obviously going into the Youth Phase, it's that transition from small-sided games to slightly bigger sided games. I do think at times that can be difficult. For a player to go from Under 11 to Under 12 I think is a very important year, because they go from Primary School to Secondary School; they go from 7-a-sde, to 8-a-side, to 9-a-side, to 11-a-side in 12 months, which in some aspects can be good, but in other aspects, it can be difficult for certain players."
- Managing the transition. How clubs try to prepare players for transitions such as spending time with the new coach before the end of the year, playing some players up an age group, playing some larger sized games (i.e. 11v11).

Transitions

- Transition as a challenge. The transition point marked a challenge for individual players that may be important in their development
- Uncertainty about transitions. How to best manage the transition from 9v9 to 11v11 game size. This is explicitly stated by some coaches but is also implicit in the nature of differing opinions between teams.
- "The biggest challenge the kids have at that age is being able to meet the athletic requirements, you know, if they can't get around the field, and we often see boys that are decent in the small sided games because there isn't far to run and they can make an impact, bust as soon as you stretch the pitch out, then they can't cover the distances; they fall away very quickly, even though technically they may be very good"
- Some data is available to suggest that players have been able to employ and maybe develop some level of psycho behavioural skills through differing challenges.
- "A bit more homework, because you have lots of different lessons. Instead of, in Primary, you'd do like, for one hour or a couple of hours you do maths then English then pretty much the same thing every day. But then when you go to Secondary School, you do a lot of different subjects... When you get set homework, you've got to do it straight away... I have certain days where I do my homework, because sometimes I have football, and sometimes I have free days"

Who

- There is strong recognition of the players being engaged in a social process both within and out with club. Recognising the role of coaches and parents in the academy process.
- "That's the biggest thing that I've taken from, sort of, the Youth Awards is, who is the child? You know, how do they tick? Knowing a little bit about their social background I think tells you an awful lot I think that's a massive I think our role is getting even bigger with that as well, I think it's getting even bigger. And if we can support them, obviously I think that's a positive for the boy. Maybe hard work for us, because it's not easy, you know"
- Least supported theme psychologically developing player.
- "A little bit of child psychology would be good, the people who I've spoken to about that, not on courses, has provided huge value to me to develop and understand. Understanding is huge. Like, we've all been kids, but we've all been kids while we've been kids. We haven't been kids while we've been adults, so we don't understand what it's like being a kid"
- Despite not being supported as much as other areas, recognition that efforts have been made by the FA
- "I think the courses at the moment, I went on the Advanced Youth, it starts to go far deeper into the social, psychological side of it really, which I think is the massive side of things. Before a coaching course, it's always been technical, tactical, primarily tactical with the A Licenses and the B Licenses. But the Advanced Youth now is actually starting to go right into, because we're both doing the 12-16 one, a teenage mind. I think you've got to do the research on what makes up a teenage mind to be a good coach for them ages. I think the technical, tactical, is probably at the back behind the social and the psychological side"

Aha!

We need a psychology intervention!!

But....

Typically, If We Add Something In Something Needs To Be Taken Out

There Is A Need To Be Clear About What Coaches Need and Want

Cognitive Task Analysis – Knowledge To Match To The Role

		Middle Childhood	Early Adolescence
		Early development of capacity to plan and use this as a method to reflect, evaluate progress and re plan.	Capacity to reflect on self improves and to deal with more complicated problems.
	Cognitive	Development of an understanding of how learning works. Improve capacity to retrieve information. There can be a connection between hard work/practice and improvement	Children become more aware of what and who they like and don't' like based on compatibility with own views and values. A better understanding of their self. Key time in identity formation. Requires broad range of opportunities to engage in identity formation. Avoid identity foreclosure being 'forced' upon them.
		Initial (often unrealistic) optimism regarding capacity to deal with challenges and problems begins to become more realistic. This can be aligned with reductions in self-confidence especially as progress is made into adolescence.	Despite increased capacity to self regulate, self regulation development often lags behind willingness to risk take and monitor consequences of risks
Social		Increase opportunity for autonomy over behaviour. But also increased chance for tension as to how that autonomy is applied	Increasing need to experiment away from parents. Potential for gaining a greater sense of confidence
- ou	and		Confidence can be fragile as failure can be interpreted as predicting future failure. Easy to enter downward spiral. Frustration continues to be a response to failure.
Psy	Development	opportunity to experience pros and cons of these processes.	Despite not always displaying desired behaviour children at this age still have a strong need for relatedness and belonging in formal educational settings. Children who never get a sense of relating to teachers are more likely to display inappropriate behaviour.
		Increased time spent with peers. Opportunity to engage in group dynamics and create relationships, understanding of 'we'.	More time spent unsupervised on their own or with peers.
	Social Role	Despite capacity become fixed about ability. Social support from adults (teachers, parent etc.) can create belief in capacity to grow , reduce frustration, and maintain high expectations	Adolescent "Individuals are not likely to do very well, or to be very motivated, if they are in social environments that do not fit their psychological needs." (p.37)
		High potential for being a period of strong relationships with adults as both find each other interesting. 1999) and Steinberg (2005)	Distancing away from parents increases willingness to engage with other non familial adults who are perceived as being worthy of engaging with, i.e. offer share or engage in something meaningful to the child.





[Athletic] Identity in Elite Youth football



Dr. Tom Mitchell

Social Perspectives

sociology

/səʊʃɪˈɒlədʒi,səʊsɪˈɒlədʒi/ 🕪

noun: sociology

the study of the development, structure, and functioning of human

the study of social problems.

P

context

/ˈkɒntεkst/ •Đ

noun

the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood.

"the proposals need to be considered in the context of new European directives" synonyms: circumstances, conditions, surroundings, factors, state of affairs; More

- the parts of something written or spoken that immediately precede and follow a word or passage and clarify its meaning.
 - "skilled readers use context to construct meaning from words as they are read"

social

/ˈsəʊʃ(ə)l/ •

adjective

- relating to society or its organization.
 "alcoholism is recognized as a major social problem"
 synonyms: communal, community, community-based, collective, group, general, popular, civil,
 civic, public, societal; More
- needing companionship and therefore best suited to living in communities. "we are social beings as well as individuals"

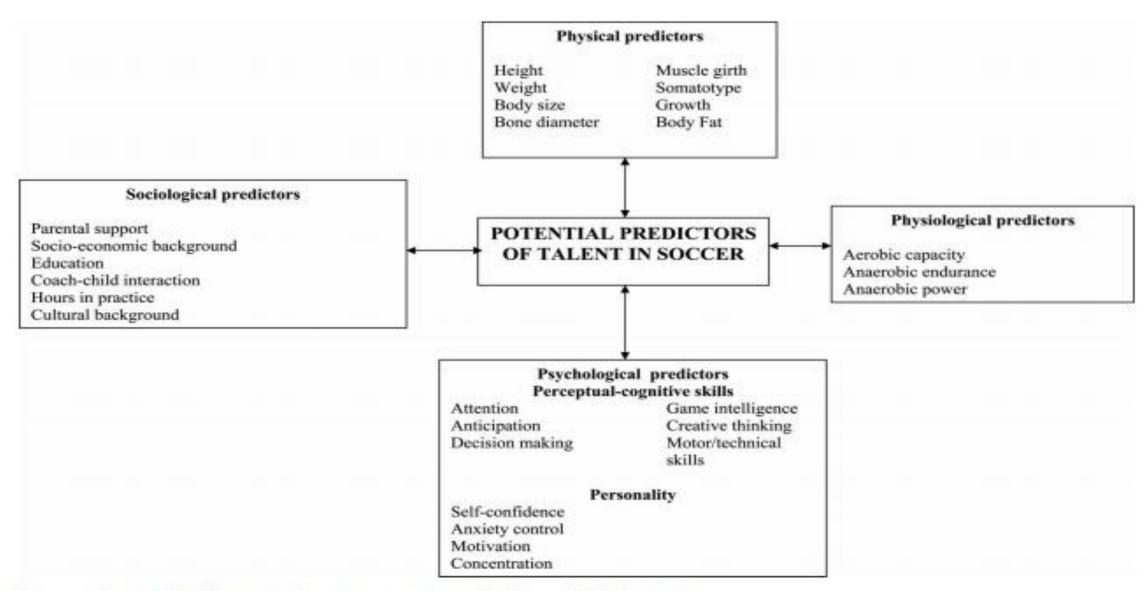
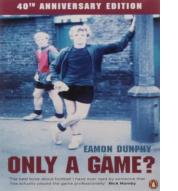
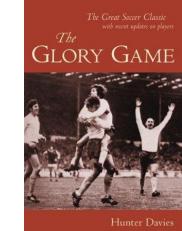


Figure 1. Potential predictors of talent in soccer (source: Williams & Reilly, 2000).

Athletic Level	Academy (16-19s) Development	Post Academy Developing Mastery	First Team Mastery
Psychological Level	Adolescence	Social insecurity and comparison	(young) Adulthood. Limelight stardom
Psycho-social level	Peers, parents, coach, Ed & Welfare	Partner New coach(es) Family	Manager New coach(es)
Environmental and cultural level	Process orientated Nurturing Caring Empathetic	Uncompetitive Lonely Isolated Uncertain Stagnant	Outcome orientated Ruthless Masculine macho Heightened competition Team
Nature of support	Highly supportive	Bereft of social support	(Typically) crisis management, sophist



What do we know about socio-cultural aspects [context] within football?



...peculiar and unique <u>institutions</u> which stamp a <u>certain character</u> on young men as they pass from adolescence to early adulthood. (Gearing, 1999).

Football environments have been characterised as; domineering, <u>authoritarian</u>, <u>hyper-masculine</u>, <u>ruthless</u> and <u>insecure</u>.

(Parker, 2001).

<u>Uncertain</u> and often volatile.

(Roderick, 2006; Nesti & Littlewood, 2011; Nesti, et al 2012).

Ambiguous context (Gibson & Groom, 2017)

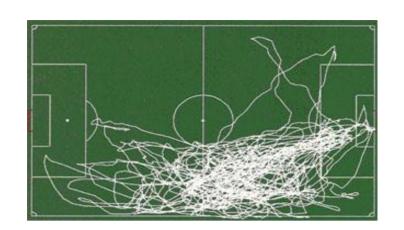


Real world understanding











What do [sport] psychologists say about developing psychosocially 'healthy' individuals?

• Self identity is a key driver for human motivation (Maslow, 1950)

• Self awareness is a central facet for successful transition in elite youth soccer (Mills, et al., 2012)

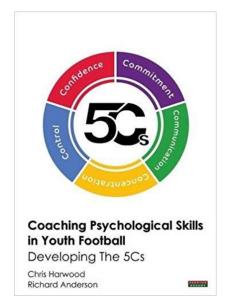
• A strong, flexible, clear sense of self may be most suitable for young players to meet their potential (Balague, 1999; Nesti & Littlewood, 2011).

What thinking tools exist for coaches?

Stage	Basic Conflict	Important Events	Outcome
Infancy (birth to 18 months)	Trust vs. Mistrust	Feeding	Children develop a sense of trust when caregivers provide reliability, care, and affection. A lack of this will lead to mistrust.
Early Childhood (2 to 3 years)	Autonomy vs. Shame and Doubt	Toilet Training	Children need to develop a sense of personal control over physical skills and a sense of independence. Success leads to feelings of autonomy, failure results in feelings of shame and doubt.
Preschool (3 to 5 years)	Initiative vs. Guilt	Exploration	Children need to begin asserting control and power over the environment. Success in this stage leads to a sense of purpose. Children who try to exert too much power experience disapproval, resulting in a sense of guilt.
School Age (6 to 11 years)	Industry vs. Inferiority	School	Children need to cope with new social and academic demands. Success leads to a sense of competence, while failure results in feelings of inferiority.
Adolescence (12 to 18 years)	Identity vs. Role Confusion	Social Relationships	Teens need to develop a sense of self and personal identity. Success leads to an ability to stay true to yourself, while failure leads to role confusion and a weak sense of self.
Yound Adulthood (19 to 40 years)	Intimacy vs. Isolation	Relationships	Young adults need to form intimate, loving relationships with other people. Success leads to strong relationships, while failure results in loneliness and isolation.

Table 1 Health Education TPSR levels

Level	Description
Level 1: Self-control	Respecting the rights and feelings of others, maintaining appropriate behavior and language in class
Level 2: Self-responsibility	Participating in class discussions, making an effort in classroom assignments, coming to class prepared
Level 3: Self-direction	Developing personal health plans and goals, thinking and acting independent of peers
Level 4: Leadership	Having positive attitudes and behaviors, helping others learn healthy behaviors and being a positive influence
Level 5: Out of the classroom	Using health applications in life, caring about and helping family members and friends







Practitioners perspectives on psychosocial characteristics and their development

Identity, person, self identity, personal characteristics

Clear performance model

What psychosocial characteristics do you think give players the best chance of progressing?

What do you perceive contributes to the development of such characteristics?

Clear development model

Methods – Semi Structured Interviews

Eighteen (N = 18) youth development practitioners from ten (N = 10) English professional football clubs. (n = 1 PL, n=4 CH, n=3 L1, n=2 L2).

Of the 18 practitioners there were 8 Heads of youth (n = 8), 6 Youth team coaches (n = 6), two Heads of Education and Welfare (n = 2), one Education and Welfare officer (n = 1) and 1 Centre of Excellence Physiotherapist (n = 1).

All full time, mean experience of 16 years in the setting.

Data from the interviews were transcribed verbatim and a hierarchical thematic analysis was employed to develop common themes from the data moving from description to analysing meaning. (Braun & Clarke, 2006)

Mitchell, Nesti, Ronkainian, Richardson and Littlewood (under review)



What do coaches want from players from a psychosocial perspective?

Lower-order themes	Higher-order themes
Character	
	The Person
Attitude	
	Character Attitude

Mitchell, Nesti, Ronkainian, Richardson and Littlewood (under review)

Self-Awareness (14)

The one thing that really does define a player at 19 or 20 is really their character.... if they haven't got that, then they'll fail, it's just my opinion you know, you've got to have that resilience to be able to react to criticism in a positive manner to react to disappointment to take on board that there might be people that you are ahead who are gonna go past and come through you because they are developing. How do you handle being dropped? How do you handle not playing as well as you should do?

The ones that are more calculated and work things out are the ones who have got a better chance you know that put it into perspective and that's a big thing as well for kids cos sometimes [in a football club] the littlest things are like the end of world.

Presence (6)

..[FORMER SCHOLAR] had fire in his belly, everyone knew when he was training with us and even when he went to train with the first team the session went up a level. Just by one person

Stable and Humble (13)

...we've just had one of the lads who's just scored the winner for the under 19s ... you know, he's got a bit of cockiness [arrogance] about him but then when he came into the classroom yesterday and we had a bit of banter about it he was trying to change the subject. The best players have that.

Own Agenda (10)

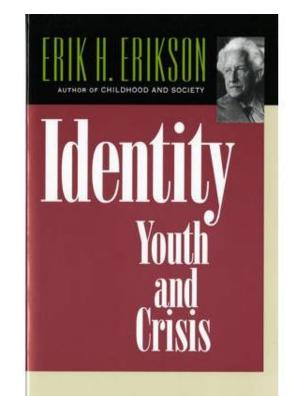
...a kid who wants to go and do some extra training, but all the rest of the lads are going to go, oh, goody two shoes, and all this sort of stuff. Well you've got to say, 'Sod that'.

Mitchell, Nesti, Ronkainian, Richardson and Littlewood (under review)

Synthesis

• Self awareness – (e.g. Erikson, 1968).

• Responsibility – (e.g. Hellison, 2011)



• [conforming] Dedication – (e.g. Holt & Mitchell, 2006)

See all >
27 Citations

See all >

Talent development in English professional soccer

Article · April 2006 with 120 Reads





2nd Tom Mitchell

Abstract

The first purpose of this study was to examine psychological aspects of the talent development experiences of adolescent youth players who were on the verge of being released by a third division professional soccer club in England. The second purpose was to compare these findings with Holt and Dunn's (2004) grounded theory of soccer success and other pertinent literature in order to present predictions about the psychological factors that may increase the chances of talented adolescent athletes making it into professional adult soccer. Nine players (M age =18.5 yrs) and three coaches from an English professional third division club were interviewed and data were subjected to an inductive-deductive analysis procedure as part of the process of qualitative theory generation. The findings suggested that players lacked volitional behavior, delaying gratification, determination to succeed, strategic career planning, coping strategies, and tangible support. We interpreted these findings against previous research and concluded that hope theory (Snyder, Rand, & Sigmon, 2002) may be a useful framework for understanding psychological issues that enable some talented adolescent soccer players to make it to professional adult soccer. Accordingly a revised grounded theory of soccer success during adolescence is presented.



Level	Description		
Level 1: Self-control	Respecting the rights and feelings of others, maintaining appropriate behavior and language in class		
Level 2: Self-responsibility	Participating in class discussions, making an effort i classroom assignments, coming to class prepared		
Level 3: Self-direction	Developing personal health plans and goals, thinkin and acting independent of peers		
Level 4: Leadership	Having positive attitudes and behaviors, helping others learn healthy behaviors and being a positive influence		
Level 5: Out of the classroom	Using health applications in life, caring about and helping family members and friends		



Coaching Psychological Skills in Youth Football

Developing The 5Cs

Chris Harwood Richard Anderson

REARBY

What contributes to the development of such characteristics?

Clear development model

Raw-data themes (frequency)	Lower-order themes	Higher-order themes
Authority (19)	Promoting Professionalism	
Additional Responsibilities (Jobs) (8)		Internal Environment
Developing People (17)	Promoting Psychosocial development	
Employ a Sport Psychologist (2)	_ 1	
Parental Influence (11)	\rightarrow	External Environment
Characteristics are pre-determined (11)	\longrightarrow	Zaternar Zava omnem
Society (2)	\longrightarrow	

Authority (19)

He does promote <u>rules that encourage behaviour</u>. With the <u>discipline</u> you've got the shaving. He has a three strike system..... basically if you don't shave, one of the lads didn't shave yesterday so he's got a strike and if you get three strikes you don't play the game on Saturday.

I've worked with as coaches have worked with and always seen excellence in their working lives, you know 'cross that ball in from the left hand side' bang yep brilliant again again. Sometimes you cross that ball in from the left hand side and it might not be what your working on you might be working on something in the middle. So they'll say 'he's not good enough you do it'. You can't generalise but quite often they've not got patience or understanding that these kids aren't of that level yet.

Additional Responsibilities (8)

We've got lads whose job it is to blow footballs up and that to make sure they're at the right pressure cos the first team go crackers if they're not you know, are the bibs washed are they clean if the first team wanna put em on. It's a massive <u>responsibility</u> within our football club.

Have they got the discipline to clean their boots, to clean the footballs. If they've got that they've got the <u>discipline</u> to track runners or mark somebody from a set play.

Developing People (17)

Teach em good values and there's an education programme there which allows em to go get a load of qualifications and to make em <u>better human beings</u>.

I'll go through their reflections with them and just say to them look defensive heading you've put excellent, I think that you're poor and that's an area we need to work on in your game so what you're gonna do is do that every morning, 10-15 minutes get a partner, get out there and work on that.

Parental Influence (11)

We see players who've got really good standards, really good values. You know, really focused, really professional, really disciplined; you meet the parents and it's no surprise that they've got those values.

Synthesis

All the effort that I've put in that way it can't have hurt to say he's got a good attitude. (Y2 Scholar reflecting on release)

Some developmental activities contradict the traditional definitions of training which include words such as 'systematic' and 'purposeful' (Buckley & Caple, 2000).

Notion of 'craft idiocy' that is described as becoming a slave to and of ones skills at the expense of wider social experiences such as husband, father or son. (Marx, 1955)

Football coaches within women's soccer acknowledge they don't have the skills or training for facilitate such development. (Gledhill & Harwood, 2015).

Parental involvement in tennis related to both parent and child having shared and communicated goals. (Holt & Knight, 2015)

Implications

 Potential for Identity foreclosure (Petitpas, 1978) – too early a commitment to a role without sufficient exploration – 'I am footballer but I also am 13 years old'

 Silencing (Manely, Roderick & Parker, 2016).

 Hidden Curriculum (Cushion & Jones, 2014).

 Docile bodies (Foucault, 1977) obedient bodies who do what they are told (seen in runners, Denison, 2007). Conformity (Parker, 2001).

 Potential for an overly strong Athletic Identity.

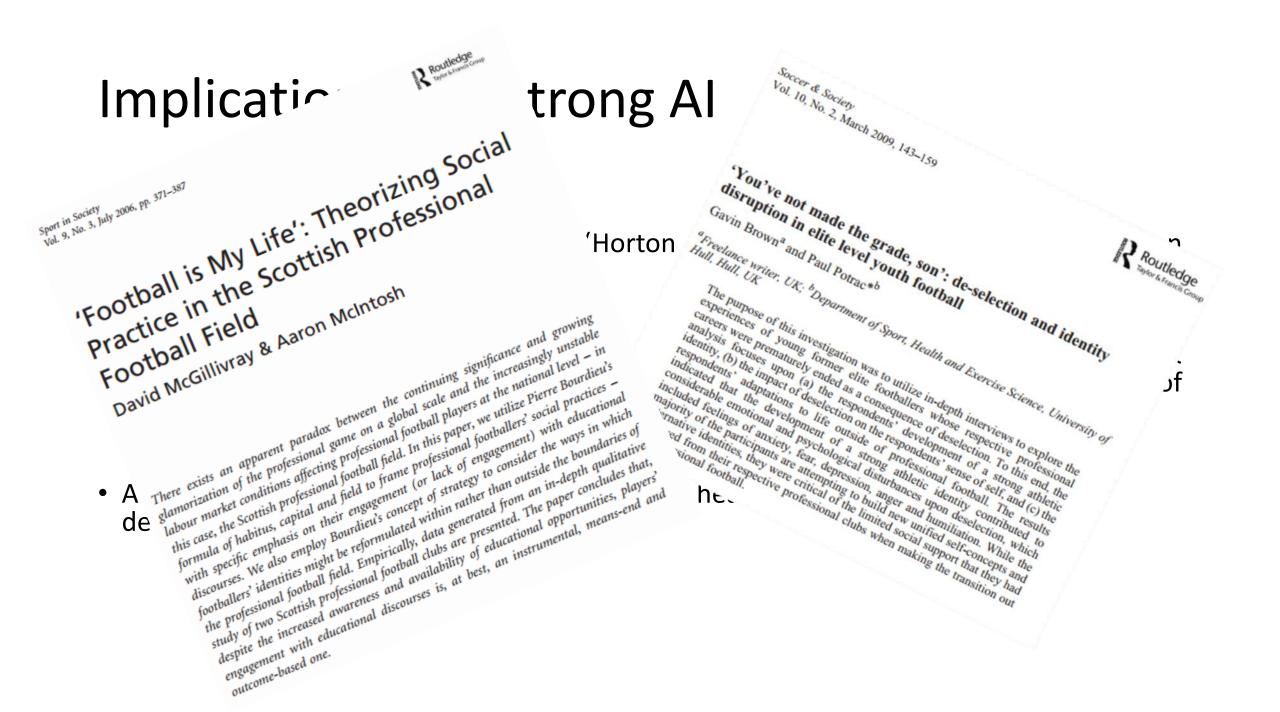


Table 1 Developmentally Appropriate Coaching Considerations

Development	Mid-Childhood (6–11 years)	Early Adolescence (10–14 years)	Mid-Adolescence (15–17 years)
Physical	Help athletes gain confidence and experience with basic sport/ motor skills	Help athletes gain perspective on pubertal/body changes (e.g., how they are necessary for physical development)	Encourage athletes to develop an increased understanding of their bodies (e.g., nutrition, physiology, mind/body connection)
Cognitive	Use concrete examples; help athletes learn the differences between luck, skill, and effort; promote a sport environment that encourages and reinforces effort and fun; encourage ath- letes to try new challenges; help athletes problem-solve within sport	Help athletes evaluate their progress based on their own past performances rather than comparisons to others; encourage athletes to express their thoughts about competition and struggles with performing; help athletes focus on the task at hand rather than comparisons to others; help athletes regulate their thoughts during practice and competition	Use abstract or open-ended examples and questions (e.g., "what went well?") to promote more advanced problem solving; help athletes learn ways to evaluate and respond to feedback (e.g., past performances, coach feedback); encourage athletes to develop personalized strategies (e.g., cue words, breathing patterns, routines) to manage thoughts before, during, and after competition
Emotional	Help athletes learn to cope with winning and losing; encourage athletes to focus on competing in the present moment rather than worrying about success or failure; teach athletes that mis- takes are learning opportunities	Help athletes understand how sport situations, positive and negative, can produce strong emotions; encourage athletes to verbalize and learn how to manage their emotions using specific strategies in practice and competition	Encourage athletes to express their complex feelings and concerns related to competition (e.g., fear of facing a specific opponent or losing); Help athletes manage emotions by focusing on what's within their control; be available for one-on-one conversations or group discussions to discuss specific strategies for coping with these emotions
Social	Help athletes learn to cooperate and positively interact with their teammates and opponents	Help athletes positively interact with and respect coaches and other adults (e.g., officials)	Help athletes learn how to approach and make fair decisions in sport situ- ations (e.g., being honest to officials, opponents, and teammates)

Obje



Key Messages for effective B-P-S

Integrating Positive Development / Personal Development is challenging in elite youth football contexts

There are some tools out there to support coaches / clubs

Monitor the effectiveness of strategies

References

Braun V and Clarke V. Using thematic analysis in psychology. *Qual Res in Psychol* 2006; 3: 77-101.

Bloom, B. S. (1985). Developing talent in young people. New York: Ballantine.

Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic Identity: Hercules' muscles or Achilles' heel? International Journal of Sport Psychology, 24, 237-254.

Brewer B. W., & Cornelius A. E. (2001). Norms and factorial invariance in the Athletic Identity Measurement Scale (AIMS). *The Academic Athletic Journal*, 15, 103-113

Denison, J. (2007). Social Theory for Coaches: A Foucauldian Reading of One Athletes Poor Performance. *International Journal of Sport Science & Coaching*, 2, 369-383

Foucault, M. (1977) Discipline and punish: the birth of the prison. New York, Vintage Books.

Gledhill, A. & Harwood, C. (2015) A holistic perspective on career development in UK female soccer players: A negative case analysis. Psychology of Sport and Exercise, 21. 65 - 77.

Hellison, D. (2011). Teaching Personal and Social Responsibility Through Sport. Chamgaing IL; Human Kinetics

Holt, N.L., & Dunn, J.G.H. (2004). Grounded theory of the psychosocial competencies and environmental conditions associated with soccer success. Journal of Applied Sport Psychology, 16, 199-219.

References

Holt, N. L., & Mitchell. T. (2006). Talent development in English professional soccer.

International Journal of Sport Psychology, 37, 77-98. [Invited article].

Horton, R. S., & Mack, D. E. (2000). Athletic Identity in marathon runners: functional focus or dysfunctional commitment? *Journal of Sport Behaviour*, 23, 101-119.

Manley, A., Roderick, M. & Parker, A. (2016). Disciplinary mechanisms and the discourse of identity: The creation of 'silence' in an elite sports academy. *Culture and Organization*, 22, 221-224

Mills, A., Butt, J., Maynard, I. and Harwod, C. (2012). Identifying factors perceived to influence the development of elite youth football academy players. *Journal of Sport Sciences*, 30, 1593-1604.

Nesti, M.S. Littlewood, M.A., (2011). Making your way in the game: Boundary situations in England's professional football world. In critical essays in Applied Sport Psychology. (Eds) D. Gilbourne and M.B. Andersen. Leeds: Human Kinetics.

Parker, A. (2001). Soccer, Servitude and sub cultural Identity: Football Traineeship and Masculine Construction. Soccer and Society, 2 (1), p 59-80.

Petitpas, A. (1978). Identity Foreclosure: A Unique Challenge. Personnel and Guidance Journal, 56, 558-56

Roderick, M. (2006). The Work of Professional Football: A Labour of Love? London: Routledge.

Spakes, A.C (1998b). Athletic Identity: An Achilles heel to the survival of the self. Qualities Health Research, 8, 644-664.

Sparkes, A.C. (2000). Autoethnogpraphy and Narratives of the Self: Reflections on Criteria in Action. Sociology of Sports Journal, 17, pp.21-43.

Wiechman, S. A., & Williams, J. (1997). Factors affecting Athletic Identity and expectations in the high school student athlete. *Journal of Sport Behaviour, 20,* 199-211.

 Complexity depends on Context (Participant to Performer)

 Player Performance affected by Stage of development (i.e., Physical / Cognitive Maturity)

• Performance ≠ Potential



1. Clear PPSTT Performance Model



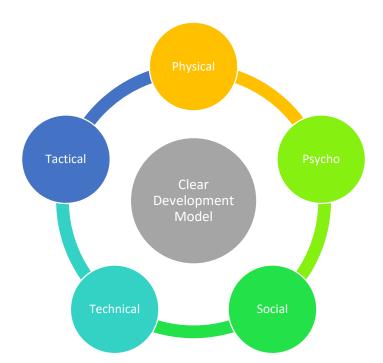
- Have flexibility within performance goals
 - understand the individual
- Variability exists within groups (i.e., adolescent development)
- Develop effective monitoring and evaluation tool to inform individual goals

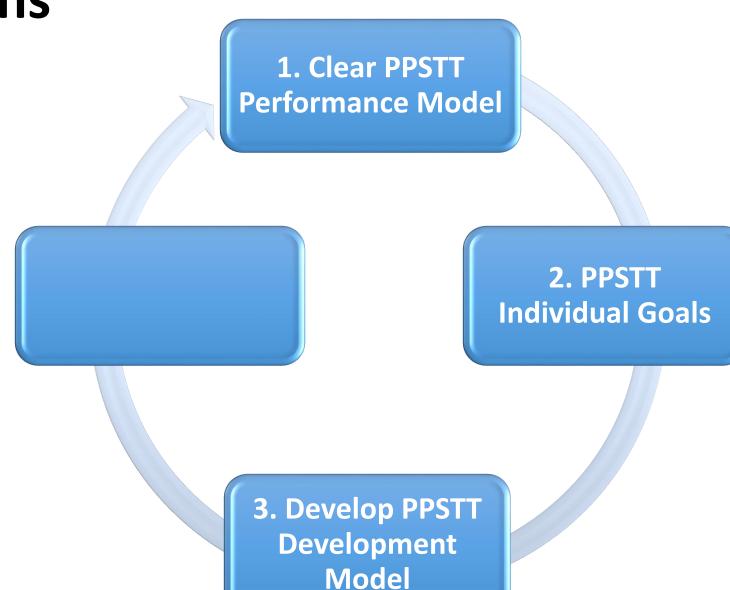


1. Clear PPSTT Performance Model

2. PPSTT Individual Goals

- Driven by Performance & Individual Goals
- Supported by appropriate workforce and resources
- Balance Planning & increase connections between PPSTT





- Holistic player evaluations and reviews (evidenced by monitoring tool)
- Re-consider performance model, individual goals and development model

1. Clear PPSTT Performance Model

4. Monitor, Evaluate & Review progress towards Goals

2. PPSTT Individual Goals



3. Develop PPSTT Development Model

 Holistic player evaluations and reviews (evidenced by monitoring tool)

 Re-consider performance model, individual goals and development model

How do we know we're right?

1. Clear PPSTT
Performance Model

Realities of

Monitor, Participant & PPSTT Individual Review progress Goals

towards GoaPerformer

Development

3. Develop PPSTT

Development

Model

Thank You

Dr Kevin Till

Dr Andrew Abraham

Dr Stacey Emmonds

Dr Tom Mitchell

Dr J. North

@KTConditioning

@AndrewAbraham11

@S_Emmonds

@tom_mitch3

@jnorthleeds

