2024 COACHING Conference

SATURDAY 23RD NOVEMBER
CROKE PARK

COACHING FOR THE FUTURE

GAA WHERE WE ALL BELONG

LGFA PEIL na mBAN

THE CAMOGIE ASSOCIATION An Cumann Camógaíochta

GAELIC GAMES COACH PATHWAY

GAELIC GAMES PLAYER PATHWAY

The Gaelic Games Approach to Athletic Development

Des Ryan

&

Prof Ian Jeffreys

GAELIC GAMES COACH PATHWAY

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THE CAMOGIE ASSOCIATION An Cumann Camógaíochta

Introduction

- **Des Ryan**

BASES (HPSA), UKSCA (ASCC) & CSci

(Director of Sport & Physical Wellbeing in the University of Galway)

- **Prof Ian Jeffreys**

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(National Strength & Conditioning Association

Ollscoil na Gaillimhe University of Galway | Spórt

NSCA® NATIONAL STRENGTH AND CONDITIONING ASSOCIATION

GAELIC GAMES COACH PATHWAY

Des Ryan –

- Sports Science Framework.
- Athletic Development Action Statement
- Public Facing Ath. Dev. Action Statement.
- Community of Practice Event.
- **F3 Youth Athletic Development Level 1.**

Ian Jeffreys –

- **Module insight Gamespeed**

GAELIC GAMES COACH PATHWAY

GAELIC GAMES

PLAYER PATHWAY

#1 The Club

THE CLUB

ADULT
YOUTH

F3
Commitment to Gaelic Games & Active Lifestyle

FOUNDATION

PARTICIPATION & ACTIVE LIFESTYLE

F2
Extension & Refinement of Movement

F1
Fundamental Movement Skills

ELITE / HIGH PERFORMANCE

ACHIEVING EXCELLENCE

E1
Adult Intercounty Player

TALENT

DEVELOPING POTENTIAL

T4
Breakthrough

T1
Demonstration of Potential

T3
Practising & Achieving

T2
Verification of Potential

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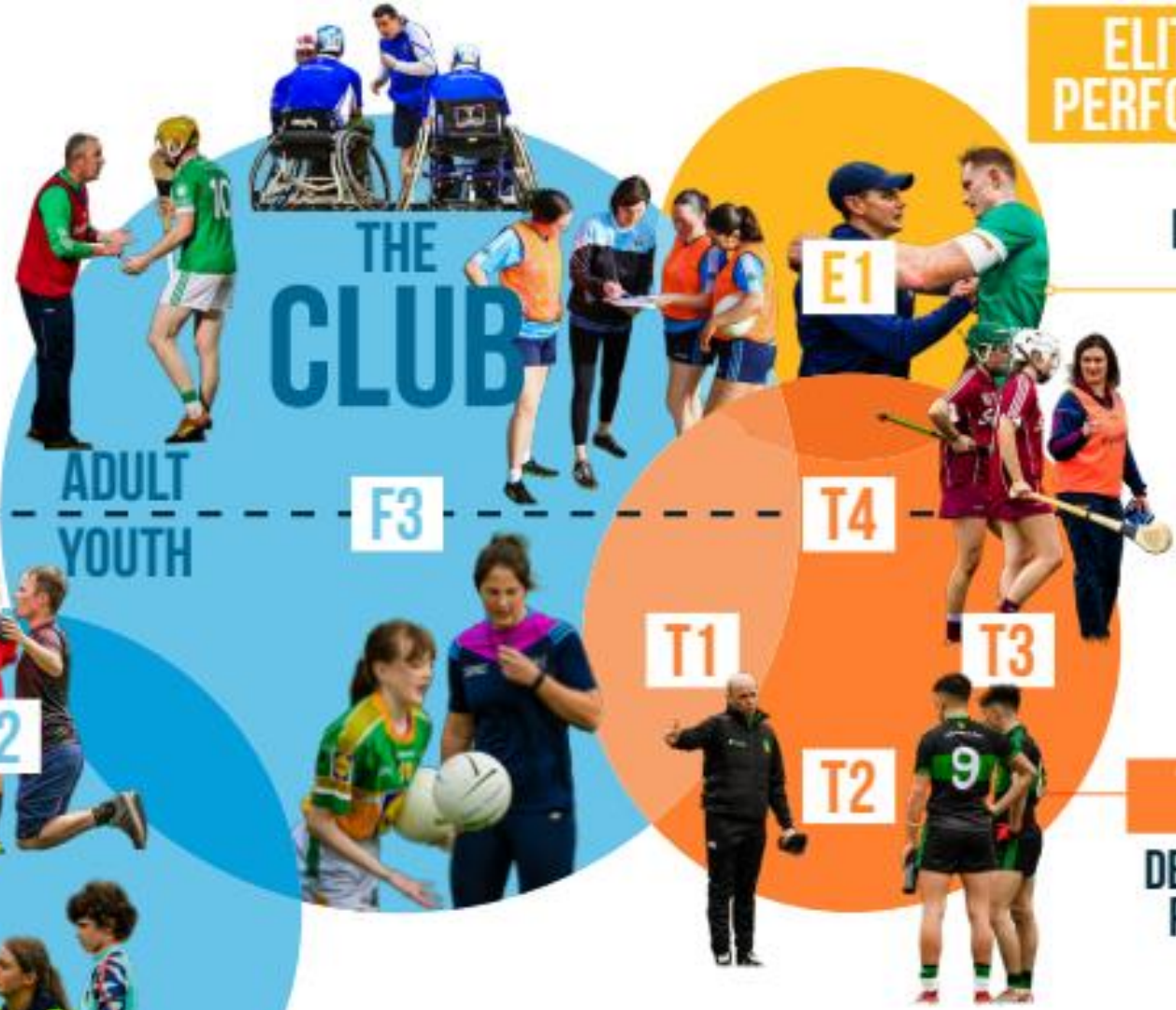
GAELIC GAMES

COACH PATHWAY



FOUNDATION

PARTICIPATION & ACTIVE LIFESTYLE

ELITE / HIGH PERFORMANCE

ACHIEVING EXCELLENCE

TALENT

DEVELOPING POTENTIAL

F1 **Nursery Coach** 4-6 year olds

F2 **Go Games Coach** 7-12 year olds

F3 **Youth Coach** 13-17 year olds
Adult Coach 18 Years+

T1, T2 & T3 **Youth Coach**
(2nd Level School/County) 13-19 year olds

T4 **3rd Level Coach** Adult

E1 **Intercounty Coach** Adult

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THE GAMOGIE ASSOCIATION
An Cumann Camógaíochta

Update

- Cavan 1952

By Comndt. John J. O'Reilly.

Every player should consider it an honour to play for his native county; a particular honour to play for such a football county as Cavan. When the individual adopts this attitude of mind, he will more easily appreciate the importance of giving of his best in all matches. In order to do this he must keep himself physically fit.

The basic qualities for football fitness are strength, speed, stamina and skill. There is little need for commenting on the quality of strength as it is a normal attribute of those who play football. However, I would point out that in addition to strong legs, strong abdominal muscles are important as an assurance against hard knocks. Some players are very proud of their 14 or 15 stone avoirdupois forgetting all the time that strength is measured in terms of muscular power and certainly not bulk of muscle.

Speed is undoubtedly a great asset, but in football the quick start is really most important. The player, who, immediately the ball is kicked to him, knows where it is going to land and can "get off" quickly, will get to the ball first even though his opponent might beat him in a longer sprint. Speed is improved by practising 30 yards bursts "all out", by concentrating on the game and by relaxing the muscles when the play is out of your area.

In the game of football where there is so much body clashing and hard knocks, stamina is of vital importance. Not only does it entail strength and fitness of body, but also strength of heart and lungs. It is built up by any form of endurance training, by regular and adequate sleep, regular meals, and moderation in the use of drink. The "will to win", the ability to "stick it" and play harder when extreme fatigue is urging him to relax his efforts is something which every player should possess and should cultivate during his training.

Great strength, speed and stamina will never bring complete success until the player has developed a style which produces the maximum economy of effort. "Correct practice makes perfect". If a skill is practised wrongly, the fault becomes automatic. Practice normally consists of kicking the ball around the goal-mouth, a system that generally results in players getting injured. Instead the young player should perfect his kick, and his catch unopposed, and later in competition, he can learn how to tackle, block-down a kick, avoid having his own kick blocked down, and observe that it is wiser to use the gate rather than try to make a hole through the wall. It is rather amazing to note the number of first-class footballers who can kick a ball with one foot, and the equally large number who regard taking free kicks the privilege of the chosen few. Practice will overcome these two deficiencies.

Training improves the co-ordination of muscles, eliminates wasteful movements, diminishes the oxygen demand and involves less expenditure of energy.

If graded exercise is taken every day, the load of work can be gradually increased until what was an exhausting load at first can be easily and comfortably carried. This is the vital part of the process of "getting fit", its maintenance comes under the heading of "keeping fit".

A study of champions reveals that though they employ different ways to get to the top they all have one thing in common - they train hard. The secret of success is hard work. Club and county player must remember this, and train for every match. Such training to have good results must extend over a period of three weeks instead of the usual last minute rush in the week just before the match. Training can also be done without a football, as sprinting, running and other games are also excellent for getting fit.

Some people say, "take up football to get fit". I say, "get fit before taking up football".

GAELIC GAMES

PLAYER PATHWAY

THE GAELIC GAMES PLAYER PATHWAY & SPORTS SCIENCE 2030 Vision

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GAELIC GAMES COACH PATHWAY

GAELIC GAMES PLAYER PATHWAY

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Aoife Lane, centre, with, from left, Phil Kearney, Kate Kirby, Des Ryan, Eamon O'Reilly, Denise Martin, Niall Moyna and Sharon Madigan during the Gaelic Games Sports Science Launch at Croke Park in Dublin. Photo by David Fitzgerald/Sportsfile.

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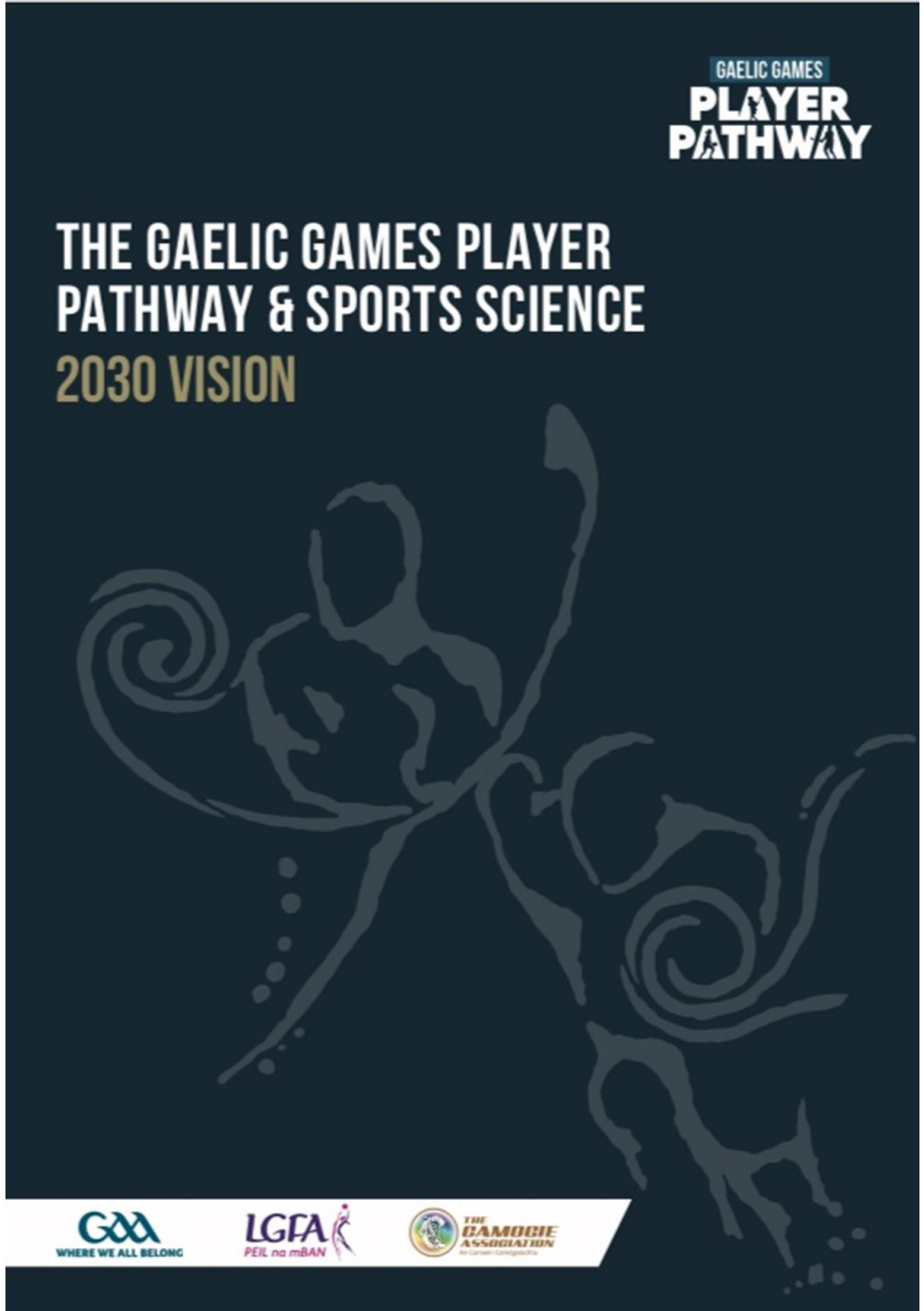

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GAELIC GAMES

PLAYER PATHWAY

F3 / YOUTH

	WHAT?	WHO?	HOW?
ATHLETIC DEVELOPMENT	• Homebased sessions/warm ups/athletic development sessions focusing on movement, technique, speed and strength. • Integrated Conditioning. • Introduce Planning and Periodisation. • Basic readiness and workload monitoring with clear follow-up process. • Nov-March: 2-3 integrated/AD units, 3 week on/1 week off. April-Sept: 1-2 integrated/AD units, 3 weeks on/1 week off. • Assessments - Standardised Fitness Tests & Player Profiles. • Review RAE, Review Maturation Bias.	• Club Coaches and Club AD Coach with AD Coach Level 1 (F3 Youth) or equivalent.	• Coach Development - AD Coach F3 Youth Level 1. • Additional online/face to face resources and education.
NUTRITION	• Awareness and knowledge of how to nurture the benefits of physical activity through sport to health, specific to males and females.	• C ents/guardians, t lthy Club Officers.	• Coach D t and Parent/ Guardia . • Linking lised partners g education • support o appropriate educati ce to face.
SPORT PSYCHOLOGY	• Wellbeing, coping and relationship building skills. • Intro to 5Cs: Confidence, Commitment, Communication, Control, Concentration.	• Coaches, Healthy Club Officer.	• Coaches/In Club Expertise.
PERFORMANCE ANALYSIS	• Support the development of reflective player who can understand basic feedback to enhance technical and game sense abilities.	• Coaches.	• Intro to PA module, PA Guide for Practice.
PHYSIOTHERAPY & REHABILITATION	• Education: Osgood Schlatters, Severs Disease, Growth plate injuries, Growth & Maturation. • Load management across different sports. • First aid support.	• Coaches, parents/guardians and players.	• Coach Development and Parent/ Guardian and Player Education.
SKILL ACQUISITION	• Support the development of a reflective player who can apply basic feedback to enhance their skilled performance. • Understand the basics of effective practice, both within and outside of organized sessions.	• Coaches.	• Coach Development • A Coach Developer, Mentor, Coach, or Skill Acquisition Specialist may also facilitate individual mentoring or a Community of Practice.

ATHLETIC DEVELOPMENT
Workload Principles:

1. Be aware of the players total workload, across all sessions. This could include what the player is doing with the club/ school/county and any other sports/ activities and organisations they may be involved with.
2. Provide guidance and support to players who are over trained and under trained.
3. Be aware of spikes in the players workloads. This can increase their risk of injury.
4. Taper the players workload in the lead into important games as this may help optimise performance.
5. Avoid*:
   - Completing two high intensity activities in the one day.
   - Playing two full games within 60 hours.
   - Completing high intensity activities on two consecutive days.
6. Encourage windows and opportunities for unstructured free play activities during the players week.
7. Encourage a minimum of one day off from structured activity per week.
8. Help players to understand these workload principles and encourage them to communicate with the coach.
9. Encourage involvement in a variety of activities/sports. As the player gets older, the number of activities will decrease. Coaches should work together to manage activity across different sports/ teams using these workload principles.

Outputs


1.Action statement published article
2.Public Facing Article.
3.Education (F3 Youth Athletic Development Leve 1)
4.Community of Practice.
5.Highlight Resources.

GAELIC GAMES COACH PATHWAY

1.Gaelic Games Athletic Development Action Statement.

GAELIC GAMES PLAYER PATHWAY

ISSUE 67 / WINTER 2022/23 ACTION STATEMENT

ACTION STATEMENT

Long-term athletic development of Gaelic games players: an action statement

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OVERVIEW

For long term athlete development to have its greatest impact it must be as widely accessible as possible and only when implemented in clubs, schools, colleges and counties can this be achieved. This requires the development of an overarching structure to facilitate the integration of LTAD into the structures of all deliverers of Gaelic games. The goal of this 'Action Statement' is to present an evidence-based reference point, based on core principles, to guide the practice of coaches and key stakeholders who support the development of players at every stage of the GAA player pathway.

THE CAMOGIE ASSOCIATION An Cumann Camógaíochta

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1.Gaelic Games Athletic Development Action Statement.

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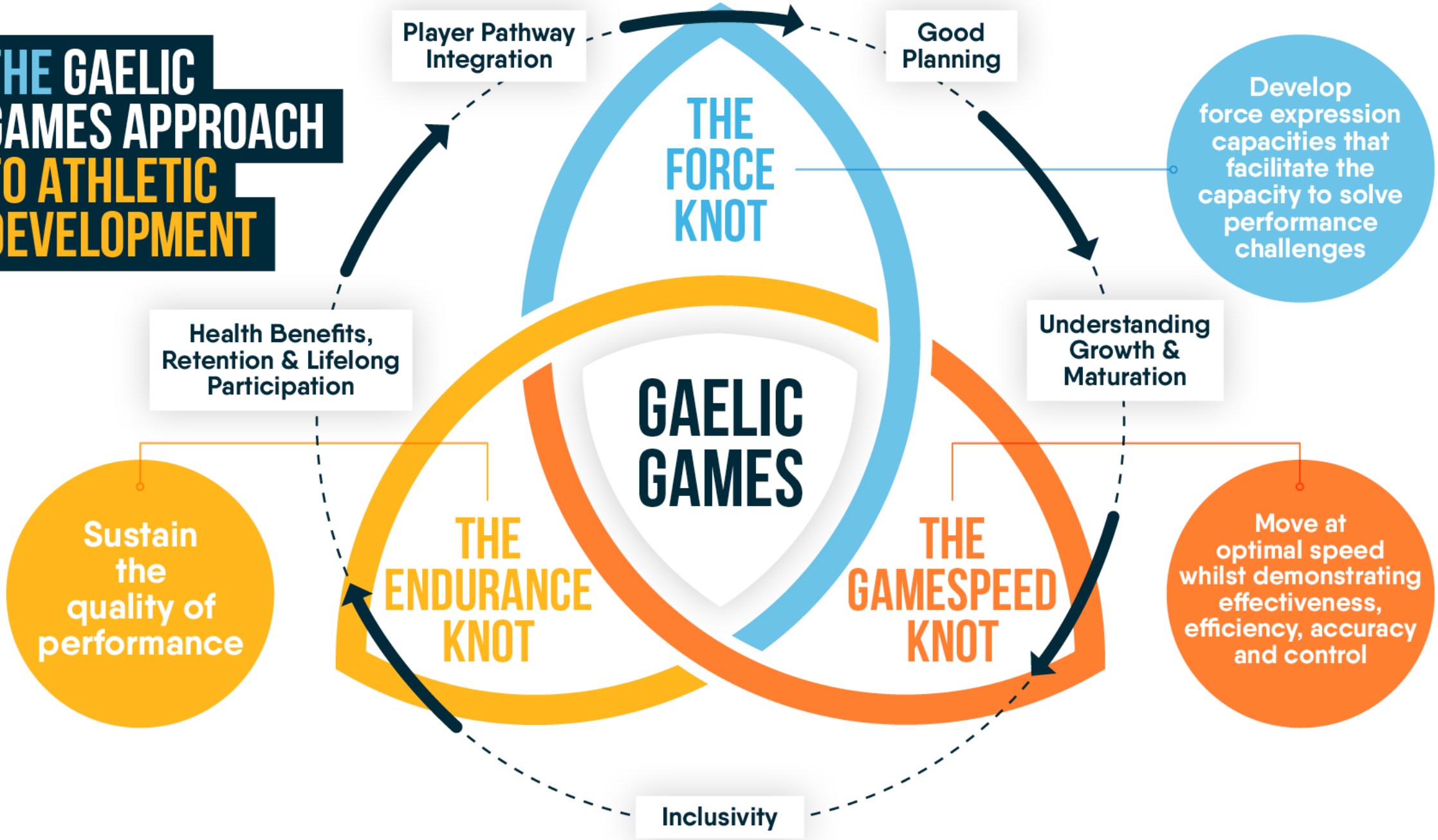
THE GAELIC GAMES APPROACH TO ATHLETIC DEVELOPMENT



2. Public Facing Article

sAthletic Development for Gaelic Games:

A Guide for Players, Coaches, Parents/Guardians and Practitioners

Contents

3. Gaelic Games Athletic Development
F3 Youth Level 1.

1. Louise Keane (Camogie Association)
2. Cliodhna O'Connor (GAA)
3. Aidan O'Connell (Cork GAA)
4. Eoin McNicholl (Ulster GAA)
5. Paul Divilly GDA (Kildare GAA)
6. Daniel Forde (Connacht GAA)
7. Jason McGahan (Kerry GAA)
8. Des Ryan (Galway GAA)

3. Gaelic Games Athletic Development
F3 Youth Level 1.

GAELIC GAMES

PLAYER PATHWAY

Gaelic Games F3 Youth Athletic Development Level 1

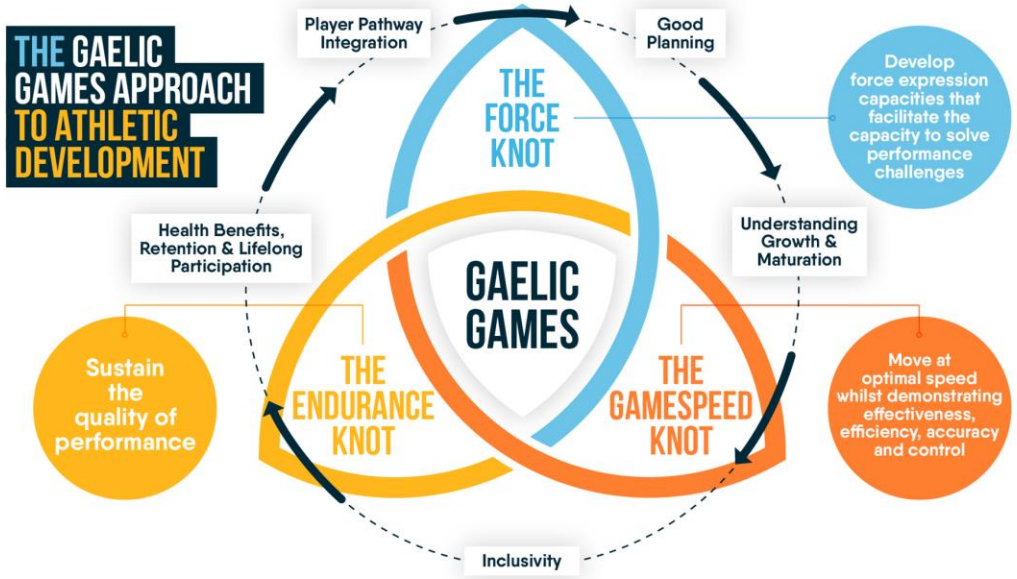
Online & Face to Face Course

GAA WHERE WE ALL BELONG | LGFA PEIL na mBAN | THE CAMOGIE ASSOCIATION

3. Gaelic Games Athletic Development
F3 Youth Level 1. (Online Modules)

Introduction Module.	(15min)
Warm Up Module	(30min)
Force Module.	(30min)
Gamespeed Module.	(30min)
Endurance Module.	(30min)
Planning Module.	(30min)
Growth & Maturation Module.	(30min)
Health Benefits, Retention, Lifelong Participation and inclusivity Module.	(30min)

Note – There are Coaching skills and tips in every module.



3. Gaelic Games Athletic Development
F3 Youth Level 1. (Online Modules)

Special Thanks

- **Martin Kennedy**

(Head of Player & Coach Development.)

- **Aoife Lane**

(Head of Department of Sport and Health Sciences in TUS Midlands.)

- **David Sweeney**

(ELearning Manager)

- **Emma Byrne**

(Learning & Development Support Officer)

GAELIC GAMES COACH PATHWAY

GAELIC GAMES PLAYER PATHWAY

TUS

SPORT HEALTH EXERCISE

GAELIC GAMES COACH PATHWAY

GAELIC GAMES PLAYER PATHWAY

THE CAMOGIE ASSOCIATION An Cumann Camógaíochta

GAA

LGFA PEIL na mBAN

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An Cumann Camógaíochta

AIM

The aim of this module is to –

WARM UP

Explain Warm up and why we need to implement it.

BENEFITS

Explain the benefits of Warm Ups.

HOW

Provide practical ways to how we deliver a Warm Up.

INFORMATION

Provide information on the Gaelic 15 Warm Up.

COACHING POINTS

Suggest Adapted ways of delivering the Gaelic 15 Warm up.

BE READY TO PLAY

Sign Post the season long Be Ready to Play Programme

GAA15 INJURY PREVENTION WARM UP + ADAPTATIONS

A

B

C

ADAPTATION

Slow non-contact game 5mins max

D

E

F

TOBAR
Gaelic Games Learning

FORCE MODULE

F3 Youth Athletic Development Level 1 Course.

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THE FORCE KNOT CONTINUUM

LEVEL 1

HOW WELL

Can they find positions, move in and out of positions?

LEVEL 2

HOW WELL & HOW MUCH

Can they move in and out of positions with progressive loads?

LEVEL 3

HOW WELL, HOW MUCH & HOW FAST

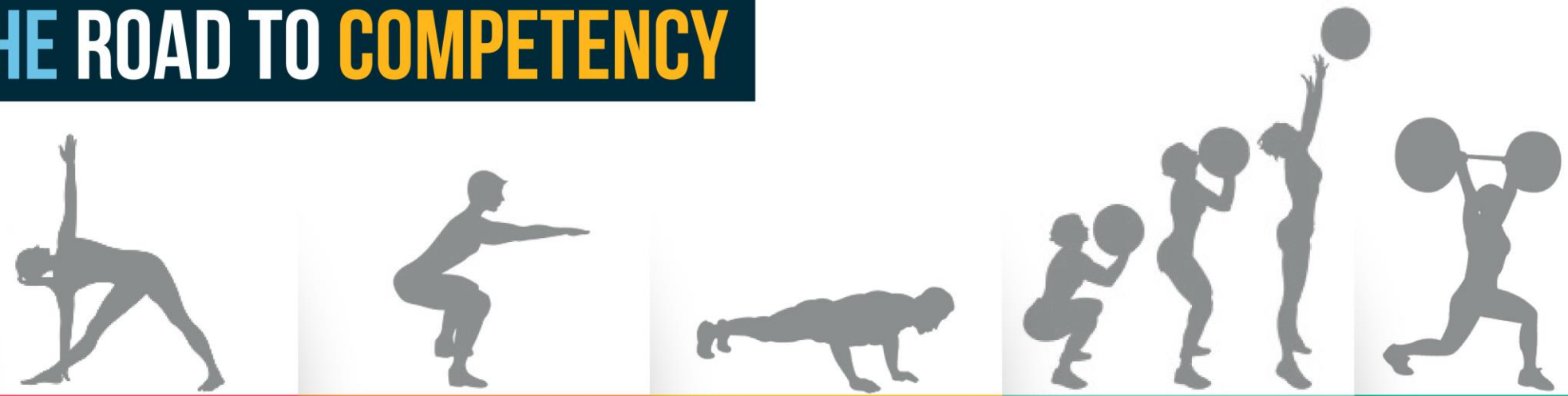
Can they maintain quality patterns at higher loads and speed?

LEVEL 4

HOW WELL THEY APPLY

Can they express force appropriately to maximise performance?

THE ROAD TO COMPETENCY



FIND THE POSITION

HOLD THE POSITION

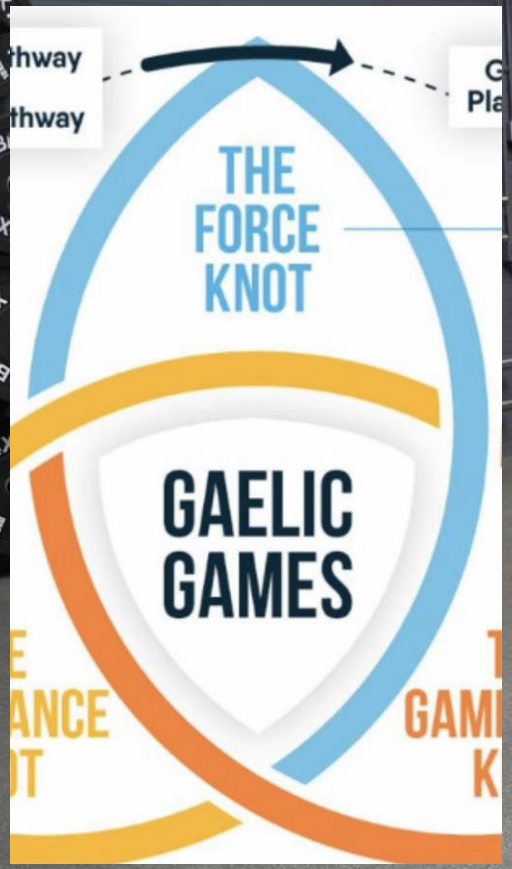
MOVE IN & OUT OF THE POSITION

CHALLENGE THE POSITION

ADD LOAD

3. Gaelic Games Athletic Development
F3 Youth Level 1. (Force Module Examples)

GAELIC GAMES
COACH PATHWAY



TOBAR
Gaelic Games Learning

GAMESPEED MODU

F3 Youth Athletic Development Level 1 Course

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THE GAMESPEED KNOT CONTINUUM

LEVEL 1

HOW WELL

Do they have a wide movement vocabulary?

LEVEL 2

HOW WELL & HOW MUCH

Can they combine these movements into sports generic actions?

LEVEL 3

HOW WELL, HOW MUCH & HOW FAST

Can they apply movements to solve contextual challenges?

LEVEL 4

HOW WELL THEY APPLY

Can they express Gamespeed fitness to achieve optimal levels of performance?

3. Gaelic Games Athletic Development
F3 Youth Level 1. (Gamespeed Module Examples)

GAELIC GAMES
COACH PATHWAY

TOBAR
Gaelic Games Learning

ENDURANCE MODU

F3 Youth Athletic Development Level 1 Cours

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WHERE WE ALL BELONG

THE CAMOGIE ASSOCIATION
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THE ENDURANCE KNOT CONTINUUM

LEVEL 1

HOW WELL

Do they have quality movements and a good basis of work capacity?

LEVEL 2

HOW WELL & HOW MUCH

Have they developed a general metabolic/work capacity?

LEVEL 3

HOW WELL, HOW MUCH & HOW FAST

Have they developed a high level of specific metabolic capacity?

LEVEL 4

HOW WELL THEY APPLY

Have they developed a specific metabolic capacity to ensure optimal performance?

3. Gaelic Games Athletic Development
F3 Youth Level 1. (Endurance Module Examples)

GAELIC GAMES
COACH PATHWAY

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THE PRINCIPLES OF PLANNING

ATHLETIC DEVELOPMENT
Workload Principles:

1. Be aware of the players total workload, not just what they do with yourself. This could include what the player is doing with the club/school/county and any other sports/activities and organisations they may be involved with.
2. Provide guidance and support to players who are over trained and under trained.
3. Be aware of spikes in the players workloads. This can increase the risk of injury.
4. Taper the players workload in the lead into important games as this may help optimise performance.
5. Avoid:
   - Completing two high intensity activities in the one day.
   - Playing two full games within 60 hours.
   - Completing high intensity activities on two consecutive days.
6. Encourage a minimum of one day off from structured activity per week.
7. Help players to understand these workload principles and encourage them to communicate with the coach.
8. Encourage involvement in a variety of activities/sports. As the player gets older, the number of activities will decrease. Coaches should work together to manage activity across different sports/teams using these workload priciples.
9. Encourage a minimum of 1 rest day from structured training per week.
10. Total hours of organised sports (training, practicing, competition, etc.) per week should be less than or equal to a child's age in years.
11. Encourage windows and opportunities for unstructured free play activities during the players week.

● guidance for players aged 12 and above ● guidance for players aged 11 and below

SESSION RPE SCALE

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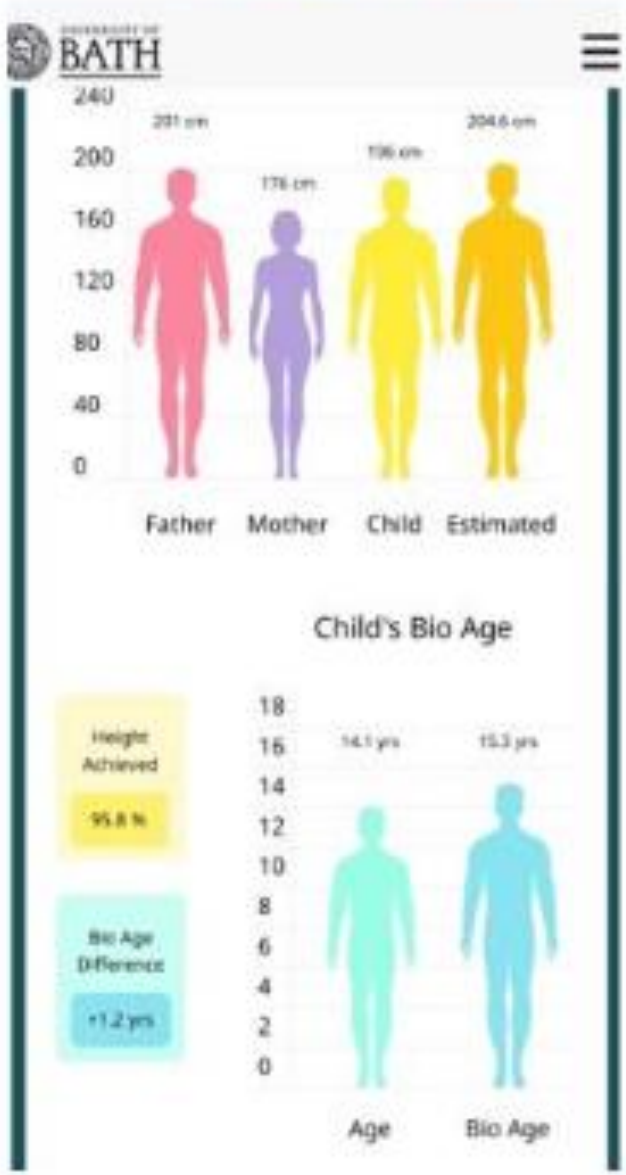
GROWTH AND MATURATION -Definitions

Growth	**Development**	**Maturation**	**Status**	**Timing**	**Tempo**

KHAMIS-ROCHE METHOD – *University of Bath Widget*

Results

- The player is biologically 15.3 yrs so I would not worry if he played an age up.
- The player is going to be very tall (204.6cm) so I will take this into consideration in relation to what positions he plays.
- The player is exiting his pubertal growth spurt so I am less worried about growth related injuries.
- The player had a number of injuries over the last two years. If I look back I will assume there is a link to a high rate of growth and a lack of workload management.. Now I know he is exiting the growth spurt potentially I am more confident of progressing the athletic development programme and his workload.



- 204.6cm
- Bio Age = 15.3 years, +1.2 yrs
- 95.8% Adult height

Go to Website

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10

HEALTH BENEFITS, RETENTION AND PARTICIPATION MODULE

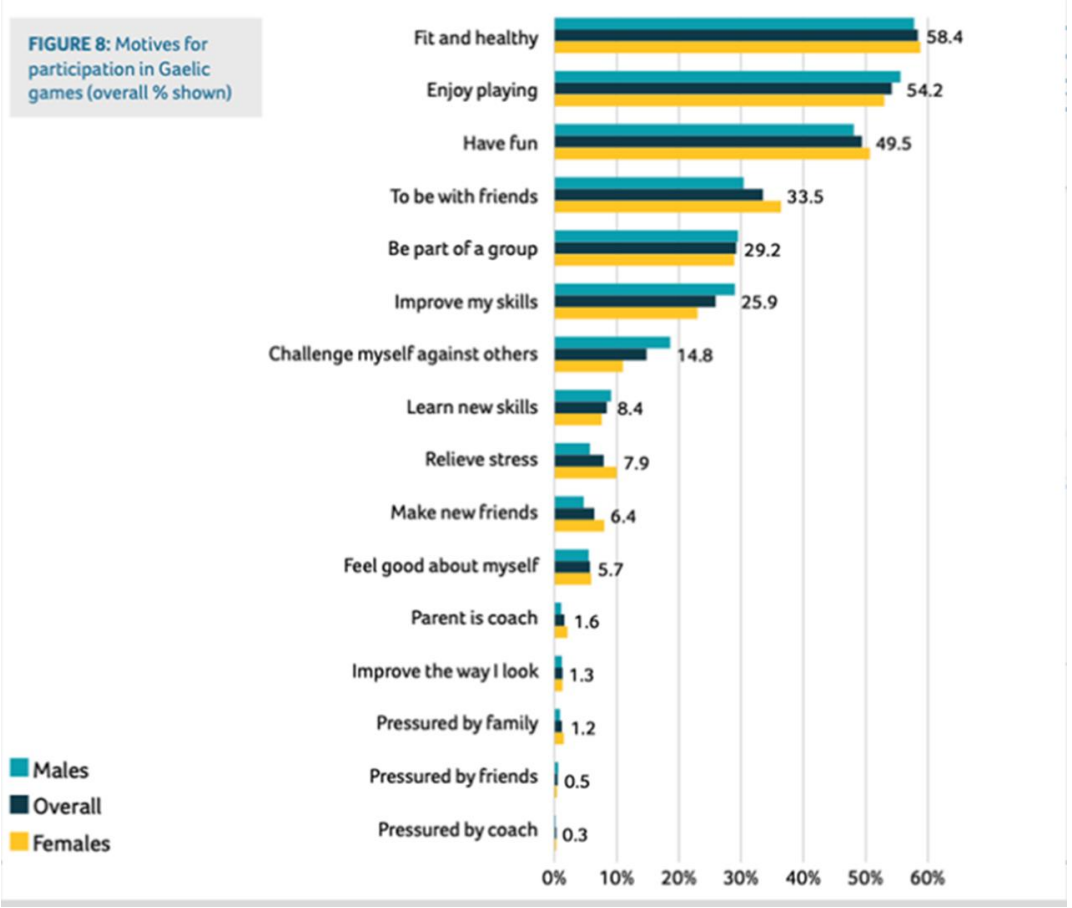
Dr Kieran Dowd, TUS

Dr Kevin Gavin, ATU

Dr Aoife Lane, TUS

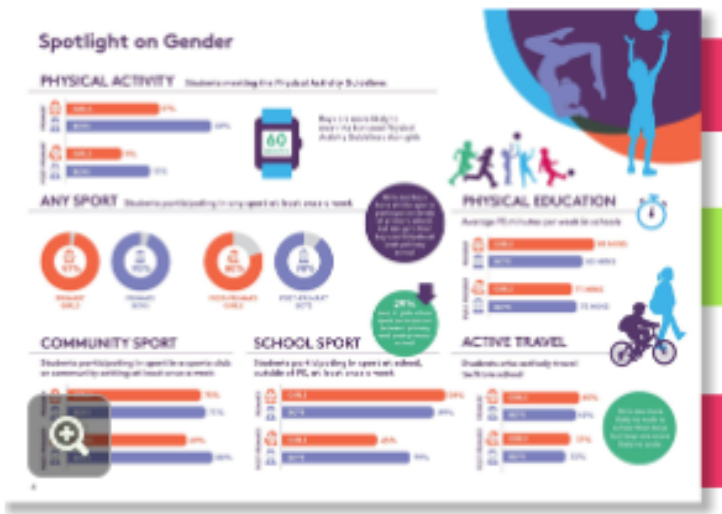
Dr Fiona McHale, UL

3. Gaelic Games Athletic Development F3 Youth Level 1. (Health Benefits, Retention & Lifelong Participation Module Examples)



PARTICIPATION IN GAELIC GAMES: CSPPA INSIGHTS

Children's Sport Participation and Physical Activity Report 2022



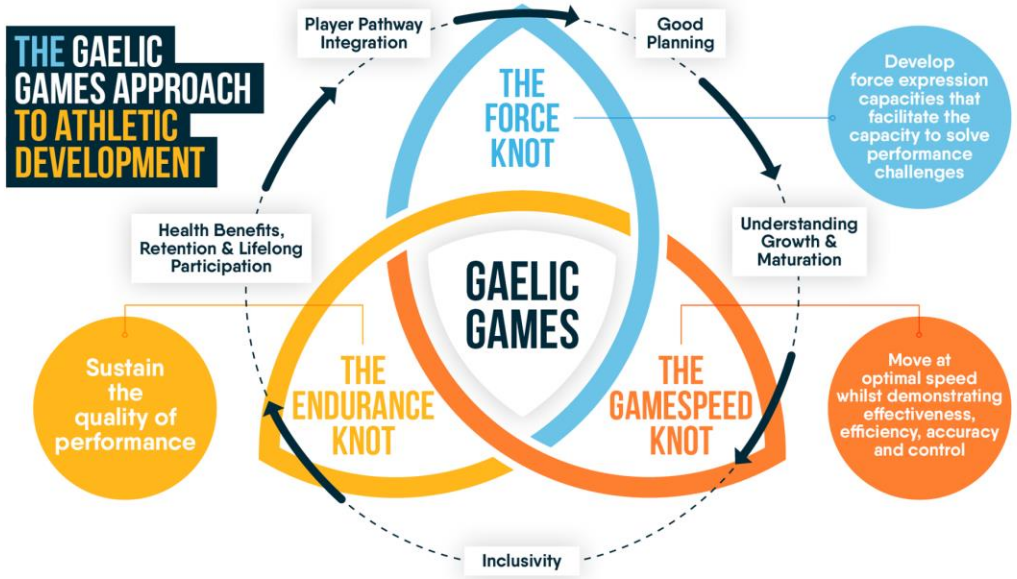
Click to enlarge

- Sport is popular among Irish youth.
- Females play less sport than males.
- Age related declines in sport participation.
- Gaelic games the most popular sport for young people.
- Males play more Gaelic games than females.

3. Gaelic Games Athletic Development
F3 Youth Level 1. (Online Modules)

Introduction Module.	(15min)
Warm Up Module	(30min)
Force Module.	(30min)
Gamespeed Module.	(30min)
Endurance Module.	(30min)
Planning Module.	(30min)
Growth & Maturation Module.	(30min)
Health Benefits, Retention, Lifelong Participation and inclusivity Module.	(30min)

Note – There are Coaching skills and tips in every module.



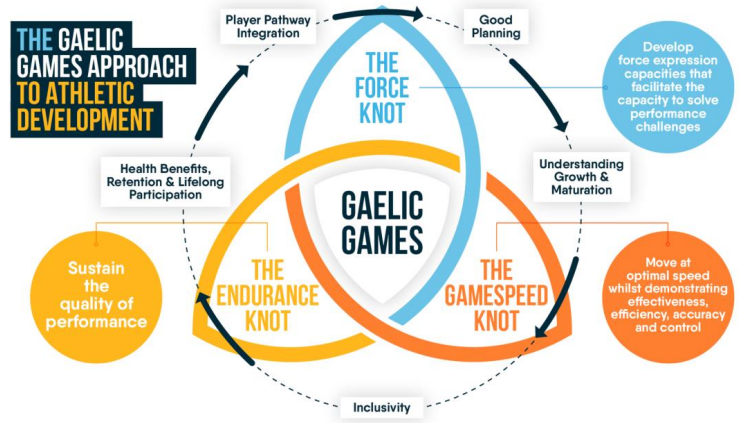
3. Gaelic Games Athletic Development
F3 Youth Level 1.

Face to Face

Workshop.

3. Gaelic Games Athletic Development
F3 Youth Level 1. (Face to Face Modules)

Introduction Module.	Theory – 10min
Warm Up Module	Practical – 70min
Force Module.	Practical – 70min
Gamespeed Module.	Practical – 70min
Endurance Module.	Practical – 70min
Planning Module.	Theory/practical – 30min
Growth & Maturation Module.	Theory/practical – 30min
LHealth Benefits, Retention, Lifelong Participation and inclusivity Module.	Theory – 10min
Feedback Section	10min



GAELIC GAMES PLAYER PATHWAY

AD Level 1 (F3 Youth) Practical Upskilling

GAELIC GAMES COACH PATHWAY

31st October 2024

3. Gaelic Games Athletic Development F3 Youth Level 1.

Role Out –

- Coach Developer induction 31/10/24.
- Launch Course 23/11/24
- Deliver 4 Pilots (End Nov Early Dec).
  (Meath, Cork, Galway & Wexford)
- Online Pilot December.
- Roll Out January 2025.

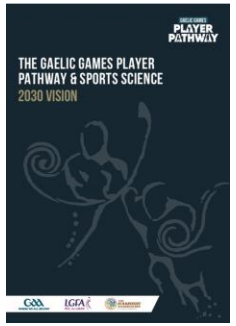
4. Community of Practice


DEVELOPMENT
Health Benefits, Retention & Lifelong Participation
Sustain the quality of performance
THE ENDURANCE KNOT
GAELIC GAMES
THE GAMESPEED KNOT
Understanding Growth & Maturation
challenges
Move at optimal speed whilst demonstrating effectiveness, efficiency, accuracy
control
DEVELOPMENT
Health Benefits, Retention & Lifelong Participation
Sustain the quality of performance
THE ENDURANCE KNOT
GAELIC GAMES
THE GAMESPEED KNOT


THE NORTH FACE

5. Resourses

- Gaelic Games Sports Science Framework.
- Long-term athletic development of Gaelic Games Players: An Action Statement.
- Public Facing Athletic Development Action Statement.
- Gaelic Games Athletic Development F3 Youth Level 1 Course.
- Be Ready to Play
- GAA 15
- Camogie Association – Jump Evolution
- Coach Development Pathway.
- Tobar. – Gaelic Games Learning



GAELIC GAMES

PLAYER PATHWAY

Gaelic Games F3 Youth Athletic Development Level 1

Online & Face to Face Course

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Gaelic Games Athletic Development Working Group & Level 1 Working Group.

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3. Aidan O'Connell (Cork GAA)
4. Eoin McNicholl (Ulster GAA)
5. Paul Divilly GDA (Kildare GAA)
6. Daniel Forde (Connacht GAA)
7. Jason McGahan (Kerry GAA)
8. Des Ryan (Galway GAA)

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Introduction

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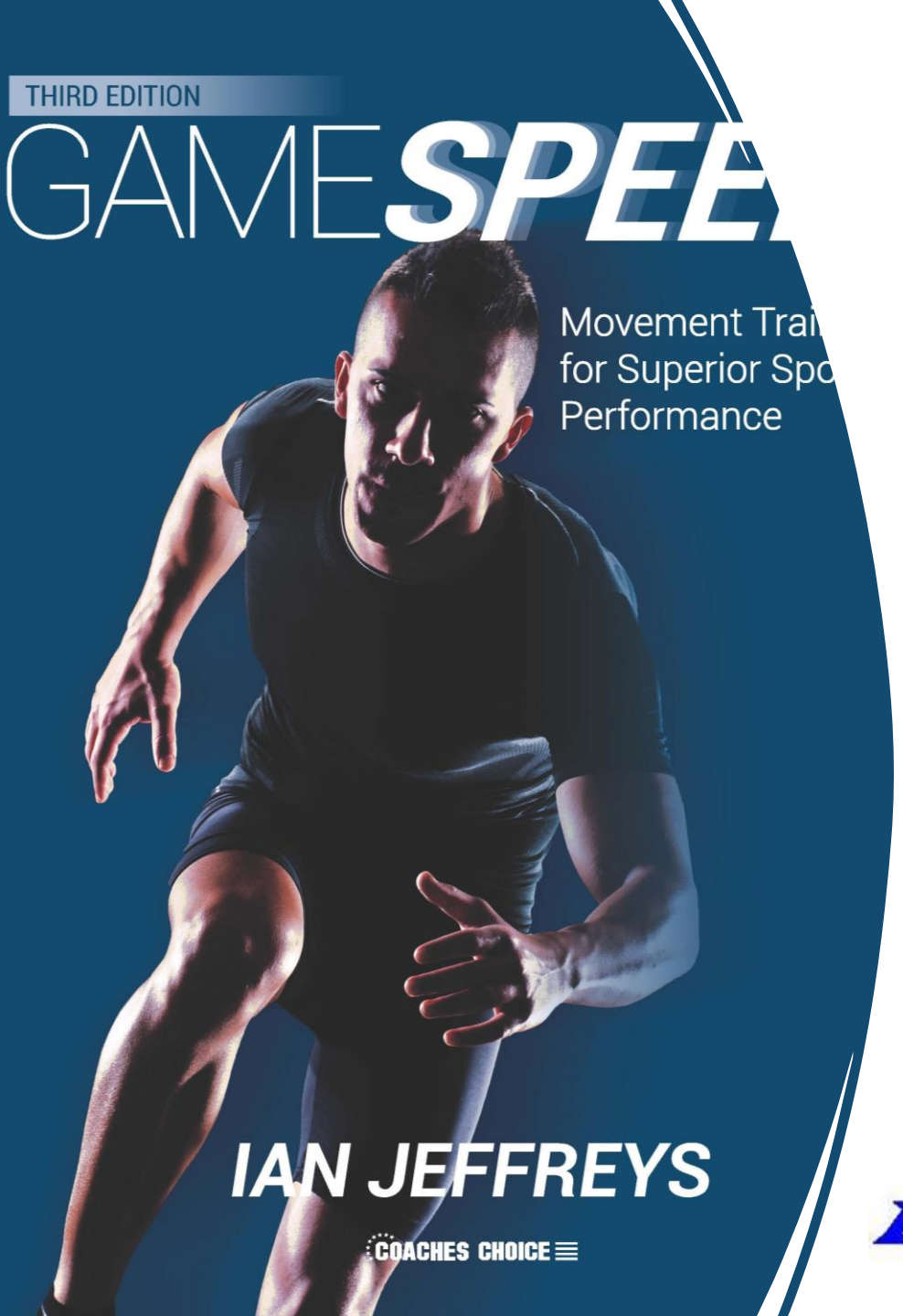
PhD, CSCS,*D, NSCA-CPT,*D, RSCC*E, FNSCA

(National Strength & Conditioning Association

NSCA® NATIONAL STRENGTH AND CONDITIONING ASSOCIATION

GAELIC GAMES COACH PATHWAY



THE GAMESPEED KNOT

Building players with high levels of adaptable speed and agility

Ian Jeffreys

PhD, ASCC, FNSCA, FUKSCA, CSCS*D,NSCA-CPT*D, RSCC*E

ALL ★ PRO
★ PERFORMANCE ★

HÁSKÓLINN Í REYKJAVÍK
REYKJAVÍK UNIVERSITY

TODAY

1

To outline **WHY** the Gamespeed knot is an essential part of any development process

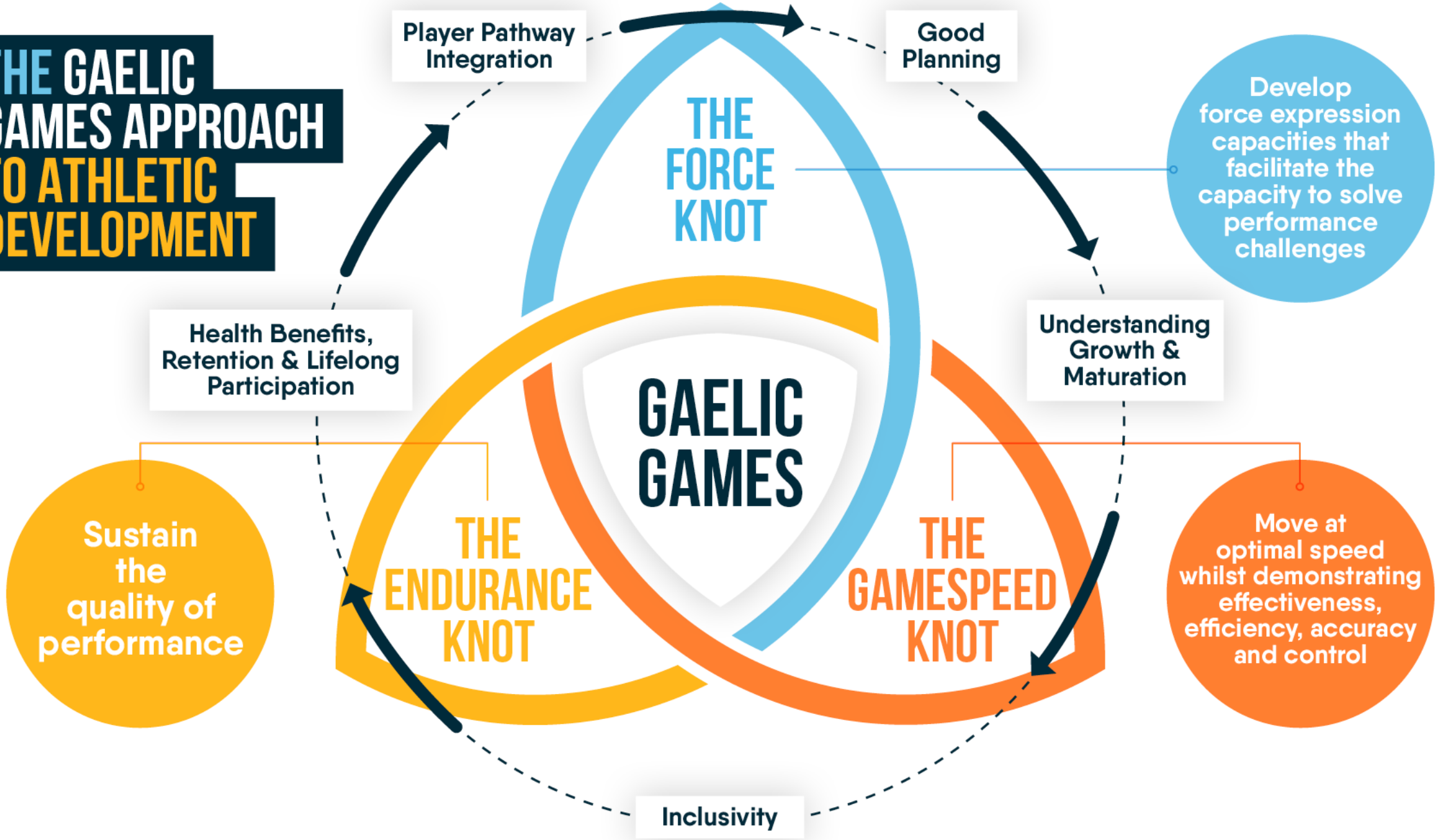
2

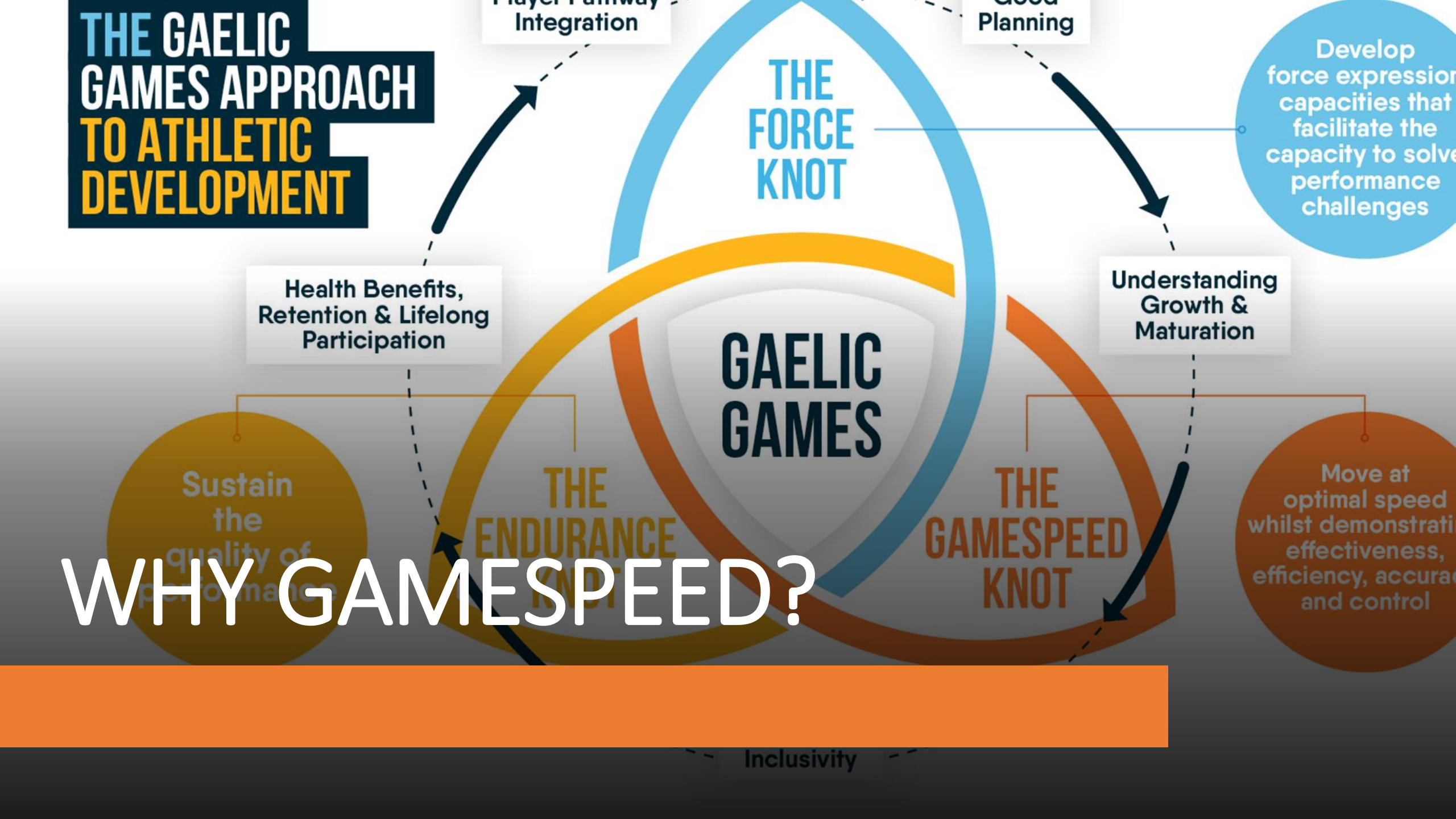
To evaluate **HOW** Gamespeed can be applied in the GAA context

3

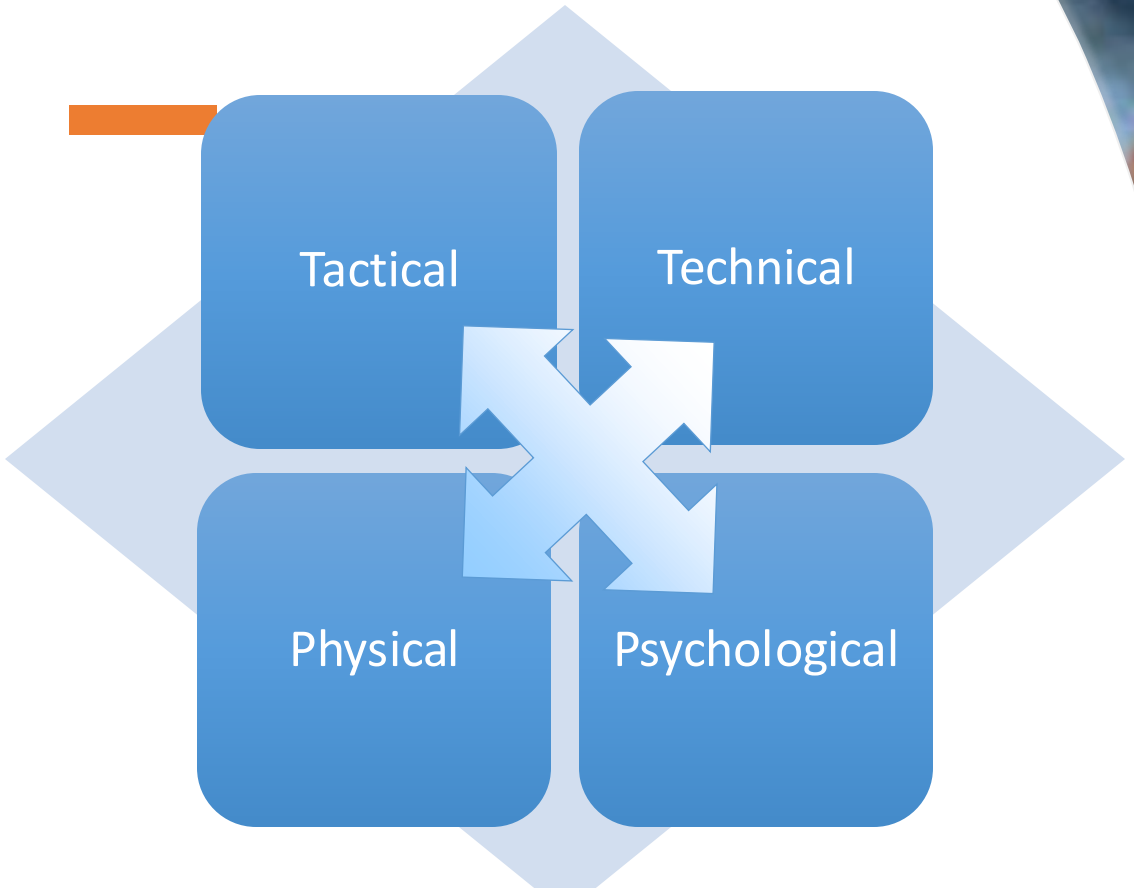
To explore how to apply the concepts to develop players with effective Gamespeed

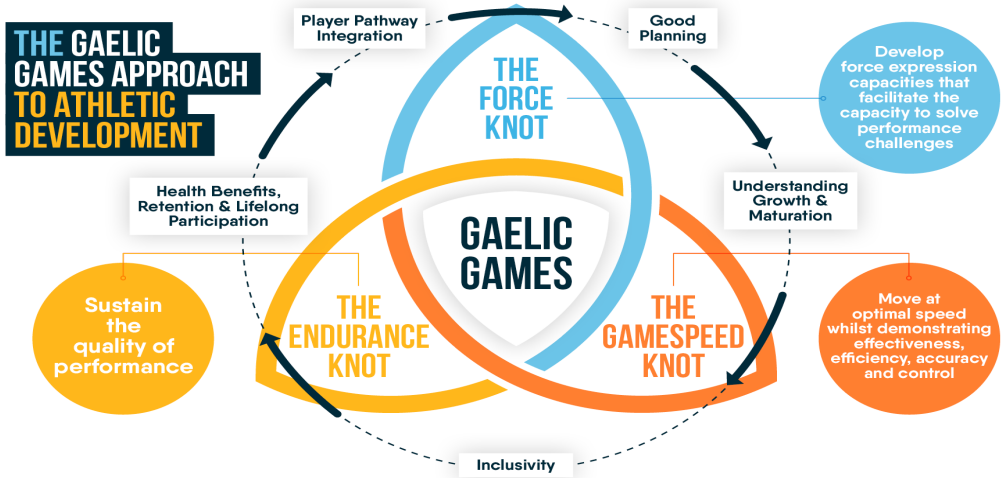
THE GAELIC GAMES APPROACH TO ATHLETIC DEVELOPMENT





WHY GAMESPEED?


Tactical
Technical
Physical
Psychological


THE GAELIC GAMES APPROACH TO ATHLETIC DEVELOPMENT
Player Pathway Integration
Good Planning
THE FORCE KNOT
Develop force expression capacities that facilitate the capacity to solve performance challenges
Understanding Growth & Maturation
Health Benefits, Retention & Lifelong Participation
GAELIC GAMES
THE ENDURANCE KNOT
THE GAMESPEED KNOT
Sustain the quality of performance
Move at optimal speed whilst demonstrating effectiveness, efficiency, accuracy and control
Inclusivity


KERRY

MOVEMENT
(The Integrator)

CONCEPTS

Our concepts frame all of the information we receive and guide our thinking and actions.

So how well do our current concepts hold up?

FRAME OF REFERENCE

Main Article

Ger J Exerc Sport Res 2018 · 48:228–234
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Change-of direction deficit in elite young soccer players

The limited relationship between conventional speed and power measures and change-of-direction performance

Introduction

In modern soccer, the appropriate development of neuromuscular capabilities is of fundamental importance to players' performance (Barnes, Archer, Hogg, Bush, & Bradley, 2014; Bush, Barnes, Archer, Hogg, & Bradley, 2015; Faude, Koch , & Meyer, 2012; Jeffreys, Huggins, & Davies, 2017). In this context, coaches and fitness specialists have been facing a great challenge to progressively increase strength, speed, and power capacities in soccer athletes, from the early stages of development to professionalism (Hammami, Negra, Shephard, & Chelly, 2017; Kobal, Pereira, Zanetti, Ramirez-Campillo, & Loturco, 2017; Loturco et al., 2017a, 2015b, 2015c). More specifically, change of direction (COD) ability seems to have an essential role in determining the success of soccer players (Brughelli, Cronin, Levin, & Chaouachi, 2008; Gorai, 2015; Jeffreys, 2008; Mujika, Santisteban, Impellizzeri, & Castagna, 2009) and has been shown to be capable of discriminating athletes at various stages of development and from different playing positions (Gorai, 2015; Mujika et al., 2009). Therefore, several training strategies have been implemented aiming to improve this very specific and critical physical parameter (Hammami et al., 2017; Loturco et al., 2017a; Ramirez-Campillo et al., 2016).

Due to the recognized importance of COD performance in team sports, a great deal of effort has been made to determine its main predictors. In this context, several investigations have been conducted to assess the relationships between distinct physical measures and different COD tasks. For example, Jones, Bampouras, and Marrin (2009) observed that linear sprint was able to explain 58% of the variance in a given COD test (i.e., 505-agility test), while with the addition of the eccentric knee-flexor strength as the independent variable in a multiple regression analysis this value increased to 67%. Similarly, Chaouachi et al. (2012) revealed that acceleration capacity, muscle strength, and body composition were among the best predictors of COD ability in soccer. In contrast, a comprehensive study performed with 106 professional soccer players concluded that acceleration, maximum speed, and agility are specific (and not necessarily interrelated) physical qualities, suggesting that different training and testing procedures for "each speed component" should be used when working with top-level athletes (Little & Williams, 2005). From these data, it can be deduced that there is a lack of consensus about the optimal approaches for assessing and improving COD performance in highly trained subjects.

More recently, a new variable called "COD deficit" has been suggested with the purpose of better understanding the mixed mechanisms involved in complex COD tasks (Nimphius, Callaghan, Spiteri, & Lockie, 2016; Pereira et al., 2018). Briefly, the COD deficit reports the additional time that one directional change requires when compared to a pure linear sprint over an equivalent distance (e.g., 10-m time compared to 505-agility test time; Nimphius et al., 2016) or difference in velocity between linear sprint assessments and COD assessments of equal distance (Pereira et al., 2018). The realization that COD capability is itself a "separate physical capacity" can guide coaches and researchers towards investigating effective strategies to increase COD performance, especially when analyzed in conjunction with a multitude of speed and power variables (Sheppard & Young, 2006). Nonetheless, despite this promising potential, to date, there is no functional information regarding the magnitude of COD deficit, or even its relationships with other performance outcomes in top-level soccer players.

Therefore, the aims of this study were the following: (1) examine the correla-

THE SPORT

SCIENCE

Measurements

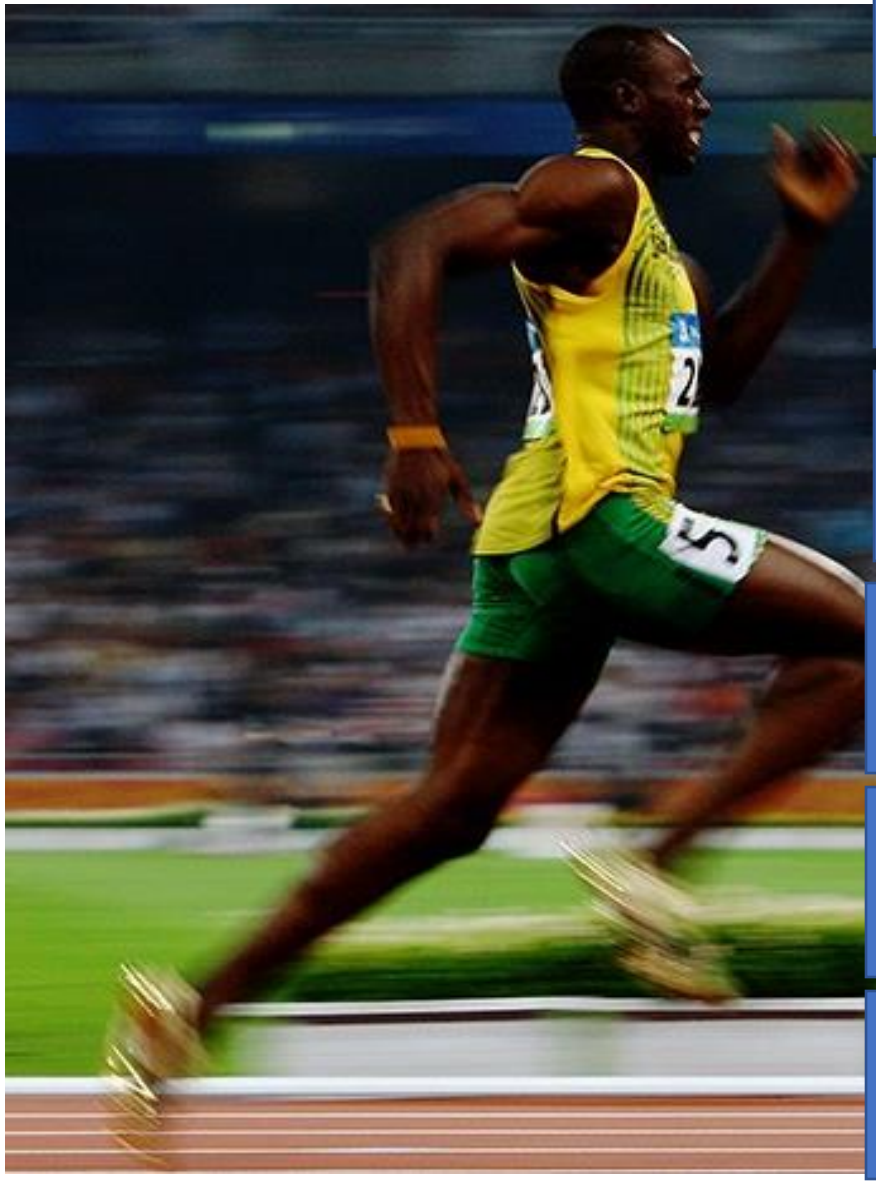
Defined concepts

Research papers

How movement impacts performance


Speed &
Agility
The Sport


SPEED
AGILITY
COD
Reactive
Agility



START

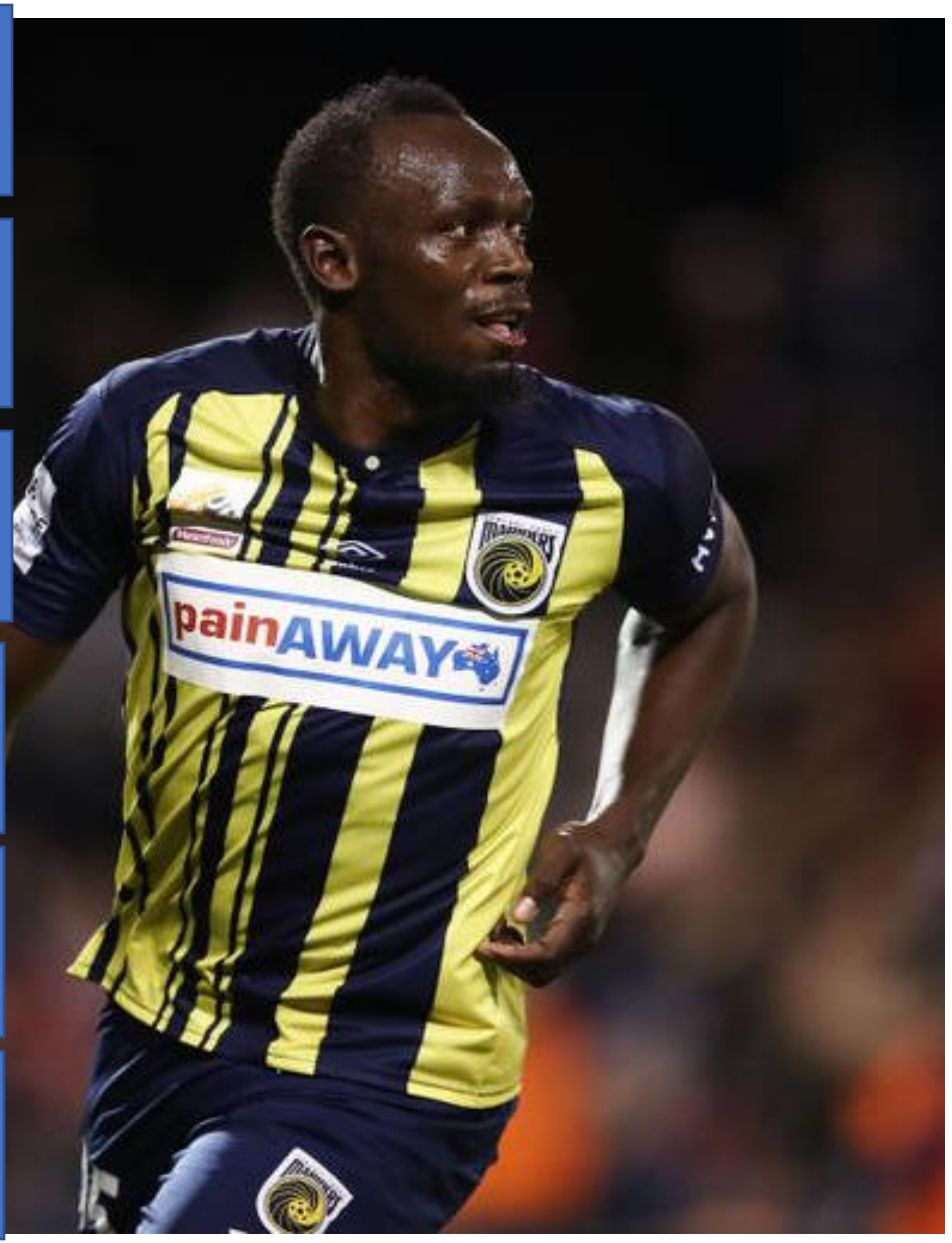
STIMULUS

DISTANCE

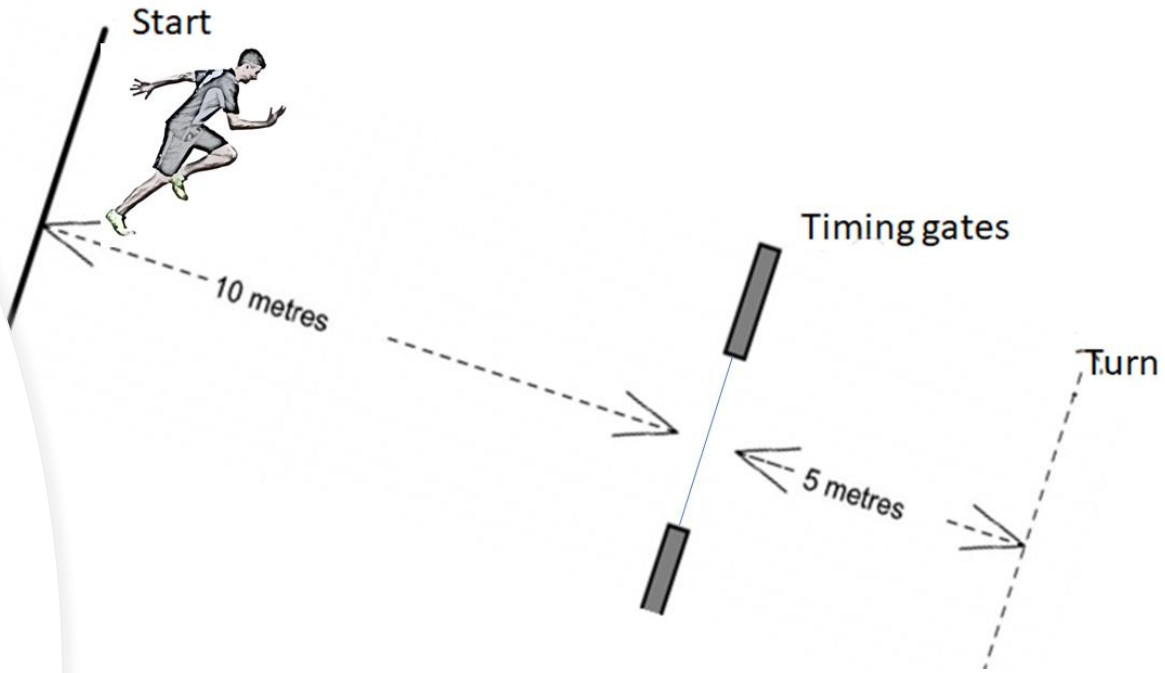
DIRECTION

RESPONSE

CRITICAL FACTOR



AGILITY/CoD?



Whenever we frame we exclude

We can only fully understand movement in context

FRAME OF REFERENCE

Main Article

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Change-of direction deficit in elite young soccer players

The limited relationship between conventional speed and power measures and change-of-direction performance

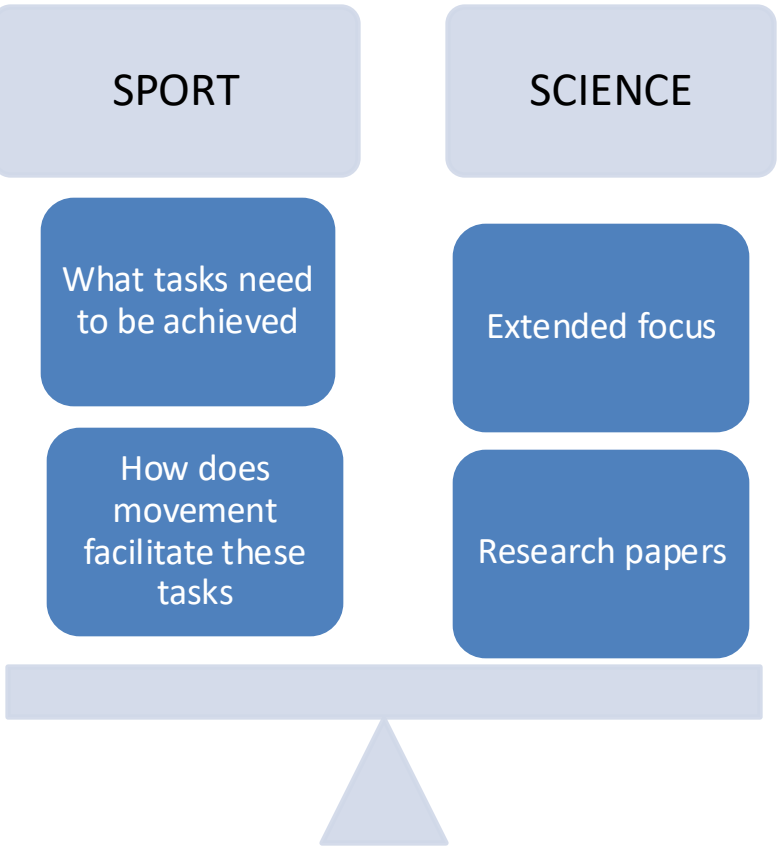
Introduction

In modern soccer, the appropriate development of neuromuscular capabilities is of fundamental importance to players' performance (Barnes, Archer, Hogg, Bush, & Bradley, 2014; Bush, Barnes, Archer, Hogg, & Bradley, 2015; Faude, Koch , & Meyer, 2012; Jeffreys, Huggins, & Davies, 2017). In this context, coaches and fitness specialists have been facing a great challenge to progressively increase strength, speed, and power capacities in soccer athletes, from the early stages of development to professionalism (Hammami, Negra, Shephard, & Chelly, 2017; Kobal, Pereira, Zanetti, Ramirez-Campillo, & Loturco, 2017; Loturco et al., 2017a, 2015b, 2015c). More specifically, change of direction (COD) ability seems to have an essential role in determining the success of soccer players (Brughelli, Cronin, Levin, & Chaouachi, 2008; Gorai, 2015; Jeffreys, 2008; Mujika, Santisteban, Impellizzeri, & Castagna, 2009) and has been shown to be capable of discriminating athletes at various stages of development and from different playing positions (Gorai, 2015; Mujika et al., 2009). Therefore, several training strategies have been implemented aiming to improve this very specific and critical physical parameter (Hammami et al., 2017; Loturco et al., 2017a; Ramirez-Campillo et al., 2016).

Due to the recognized importance of COD performance in team sports, a great deal of effort has been made to determine its main predictors. In this context, several investigations have been conducted to assess the relationships between distinct physical measures and different COD tasks. For example, Jones, Bampouras, and Marrin (2009) observed that linear sprint was able to explain 58% of the variance in a given COD test (i.e., 505-agility test), while with the addition of the eccentric knee-flexor strength as the independent variable in a multiple regression analysis this value increased to 67%. Similarly, Chaouachi et al. (2012) revealed that acceleration capacity, muscle strength, and body composition were among the best predictors of COD ability in soccer. In contrast, a comprehensive study performed with 106 professional soccer players concluded that acceleration, maximum speed, and agility are specific (and not necessarily interrelated) physical qualities, suggesting that different training and testing procedures for "each speed component" should be used when working with top-level athletes (Little & Williams, 2005). From these data, it can be deduced that there is a lack of consensus about the optimal approaches for assessing and improving COD performance in highly trained subjects.

More recently, a new variable called "COD deficit" has been suggested with the purpose of better understanding the mixed mechanisms involved in complex COD tasks (Nimphius, Callaghan, Spiteri, & Lockie, 2016; Pereira et al., 2018). Briefly, the COD deficit reports the additional time that one directional change requires when compared to a pure linear sprint over an equivalent distance (e.g., 10-m time compared to 505-agility test time; Nimphius et al., 2016) or difference in velocity between linear sprint assessments and COD assessments of equal distance (Pereira et al., 2018). The realization that COD capability is itself a "separate physical capacity" can guide coaches and researchers towards investigating effective strategies to increase COD performance, especially when analyzed in conjunction with a multitude of speed and power variables (Sheppard & Young, 2006). Nonetheless, despite this promising potential, to date, there is no functional information regarding the magnitude of COD deficit, or even its relationships with other performance outcomes in top-level soccer players.

Therefore, the aims of this study were the following: (1) examine the correla-



GAMESPEED

Changing the frame of reference


Speed &
Agility
GAMESPEED
The Sport

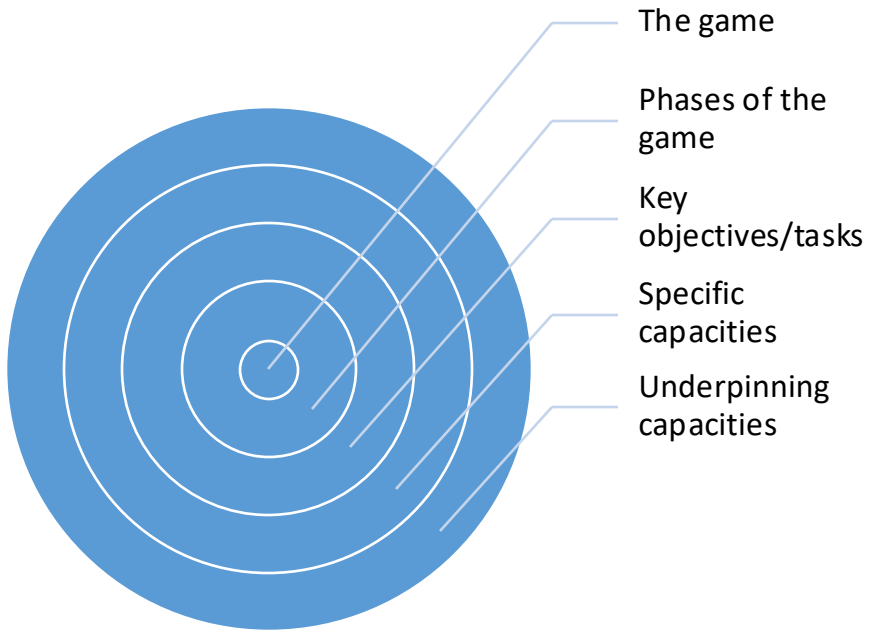
Gamespeed

“a context-specific capacity; where an athlete uses movement of optimal velocity, precision, efficiency, and control to interact with the environment in order to maximise the performance of a sport specific task”

Explaining Gamespeed Performance

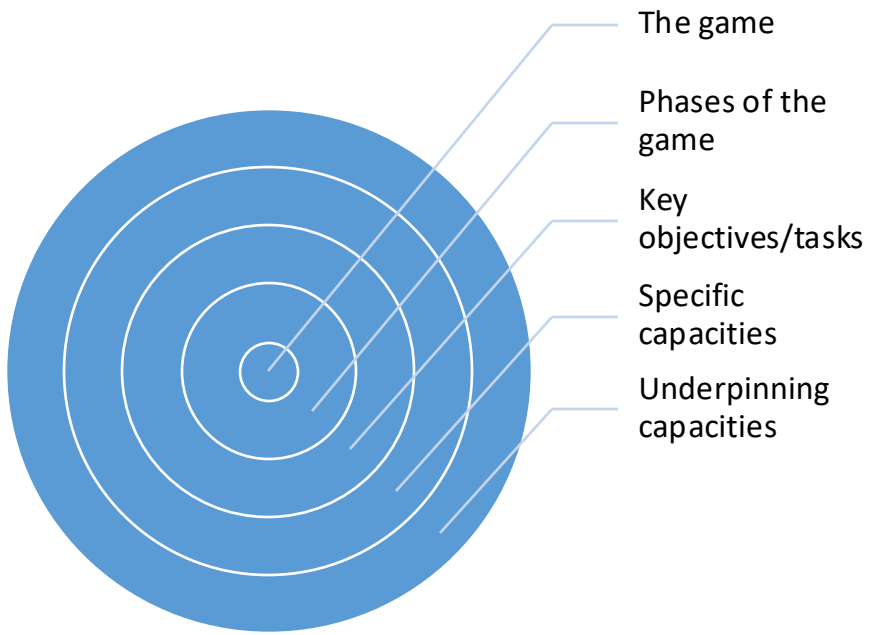
HOW WE GET TO GAMESPEED

REVERSE ENGINEERING GAMESPEED



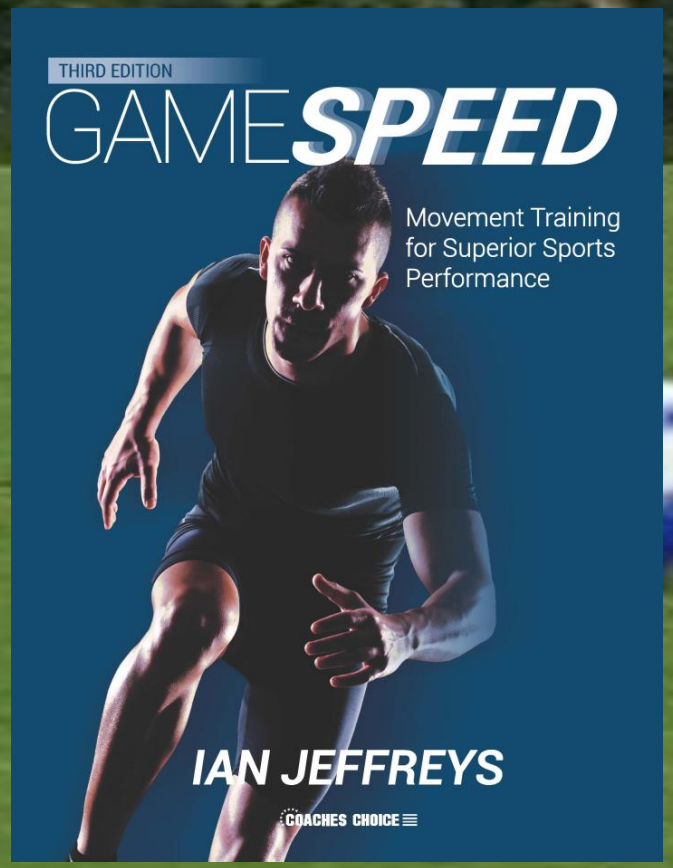
KEY OBJECTIVES/TASKS

Offense/Defence - On Ball/Off Ball



CAPACITIES – GAMESPEED FITNESS
(Breadth and Height)

Offense/Defence - On Ball/Off Ball



THE GAMESPEED MOVEMENTS

Actualisation

- Acceleration
- Max Speed

Initiation

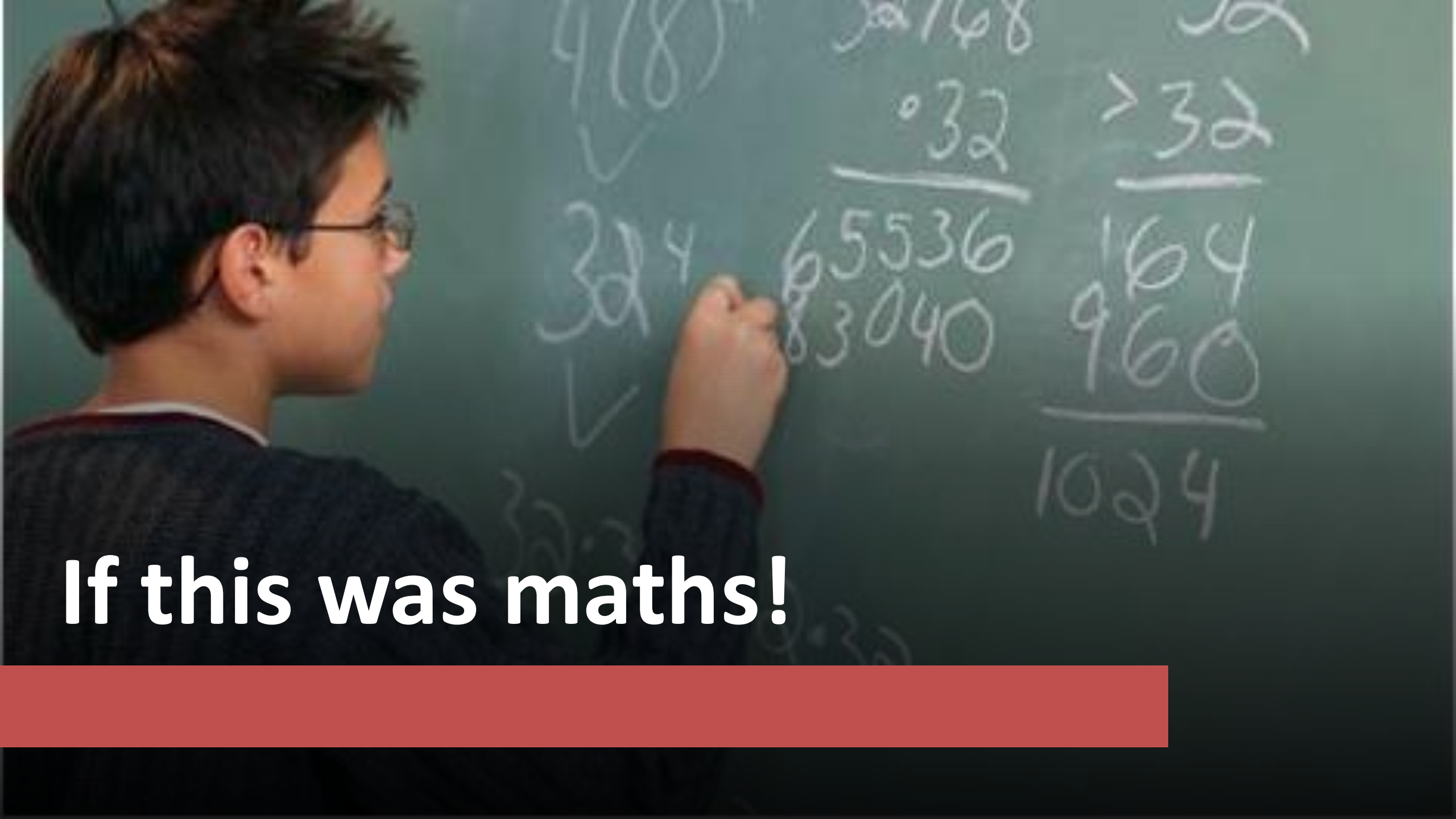
- Starting
- Changing Direction

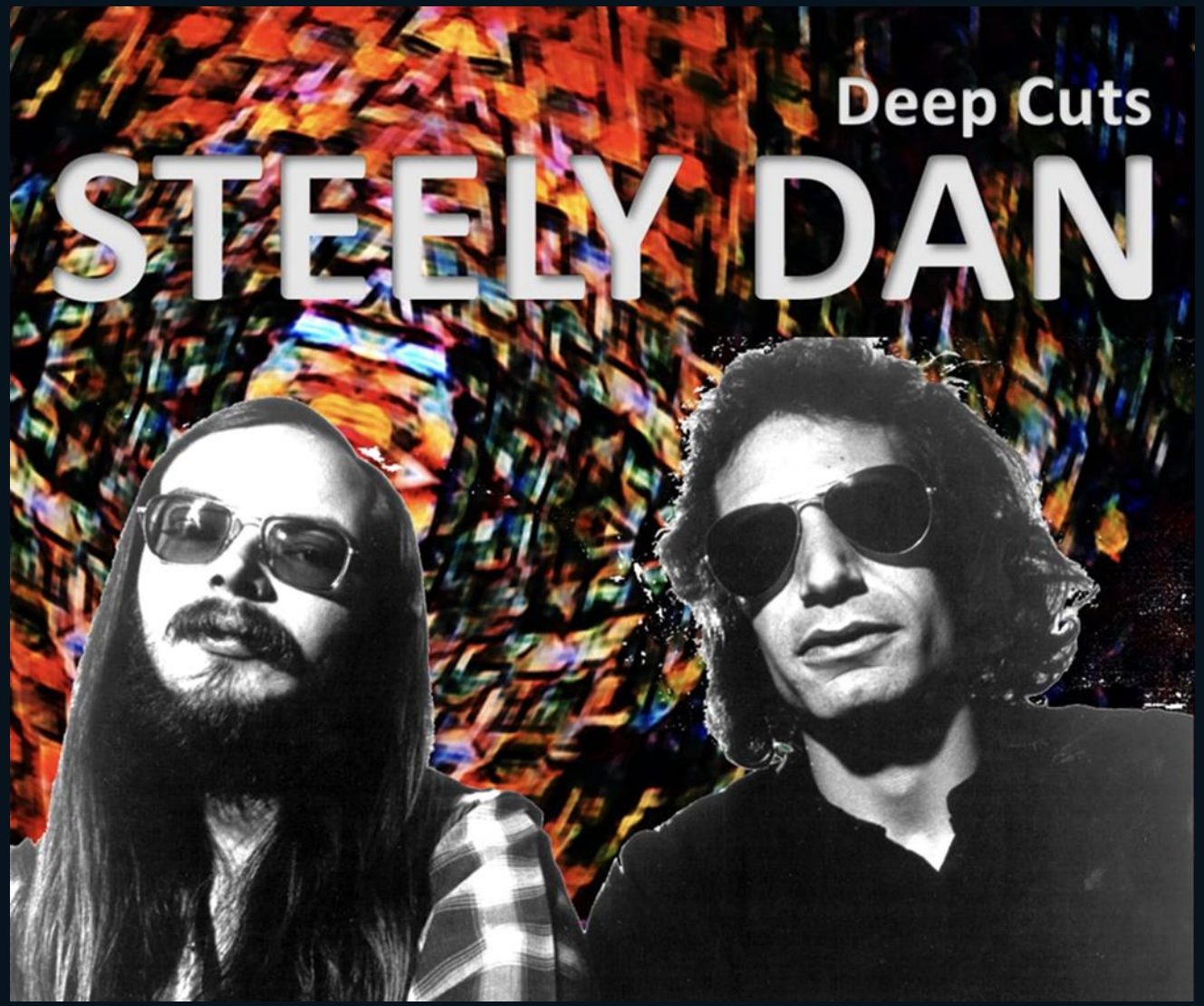
Transition

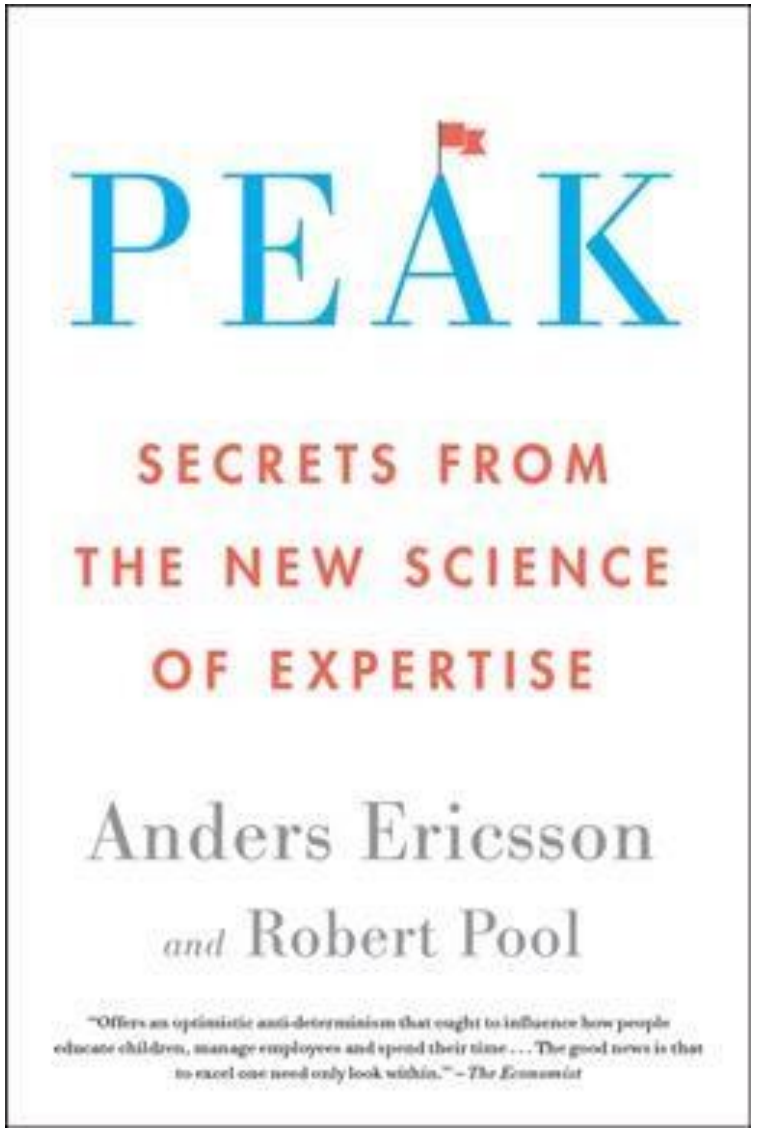
- Static
- Moving

THE GAMESPEED TRAINING TRIAD

How should we practice?


If this was maths!


Deep Cuts
STEELY DAN


PEAK
SECRETS FROM
THE NEW SCIENCE
OF EXPERTISE
Anders Ericsson
and Robert Pool
"Offers an optimistic anti-determinism that ought to influence how people educate children, manage employees and spend their time . . . The good news is that to excel one need only look within." – The Economist

THE GAMESPEED KNOT CONTINUUM

LEVEL 1

HOW WELL

Do they have a wide movement vocabulary?

LEVEL 2

HOW WELL & HOW MUCH

Can they combine these movements into sports generic actions?

LEVEL 3

HOW WELL, HOW MUCH & HOW FAST

Can they apply movements to solve contextual challenges?

LEVEL 4

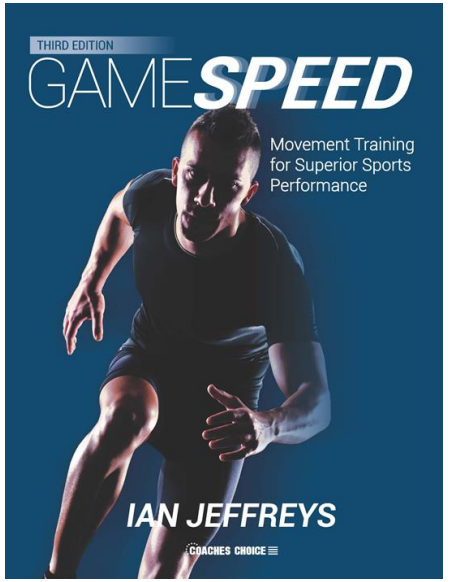
HOW WELL THEY APPLY

Can they express Gamespeed fitness to achieve optimal levels of performance?

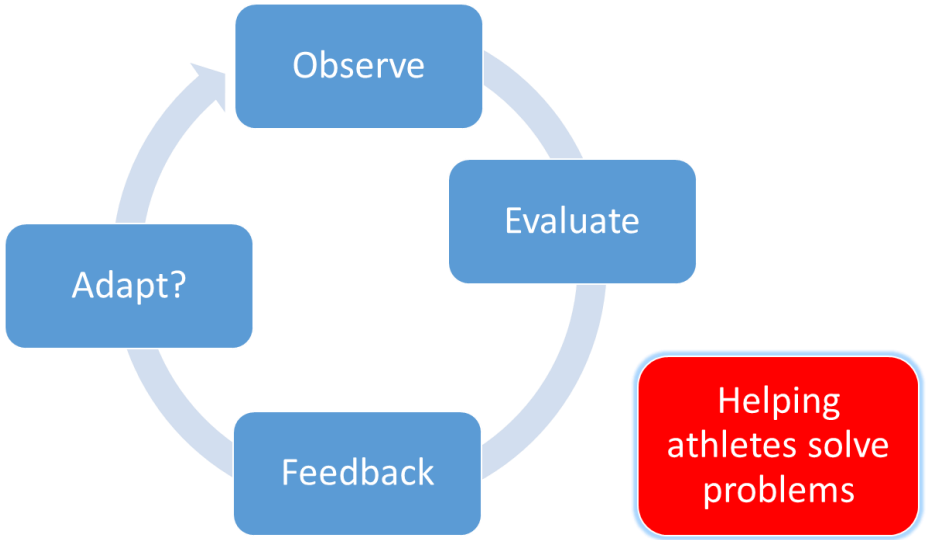
Necessary but insufficient

Facilitating the Journey to Gamespeed

Establish	Progress	Sports Generic Tasks	Sport Specific Tasks	Games activities
				
Establish basic patterns	Add variants (temporal & spatial)	Progress variables into sport generic task	Adjust variables to make sport specific tasks	Apply Gamespeed in game like situations



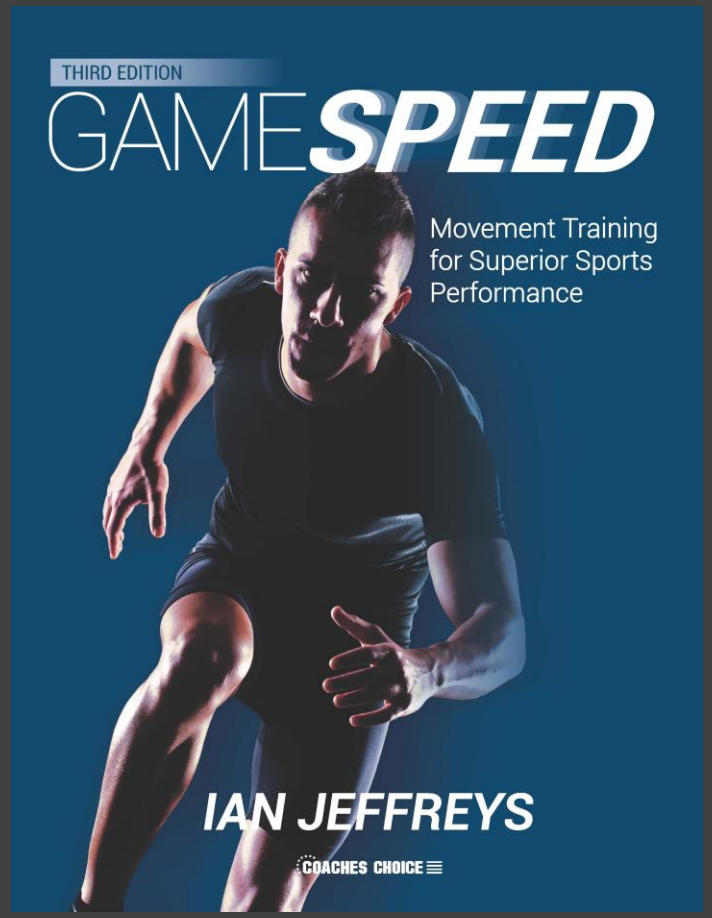
Increase degrees of freedom



the

CATALYST

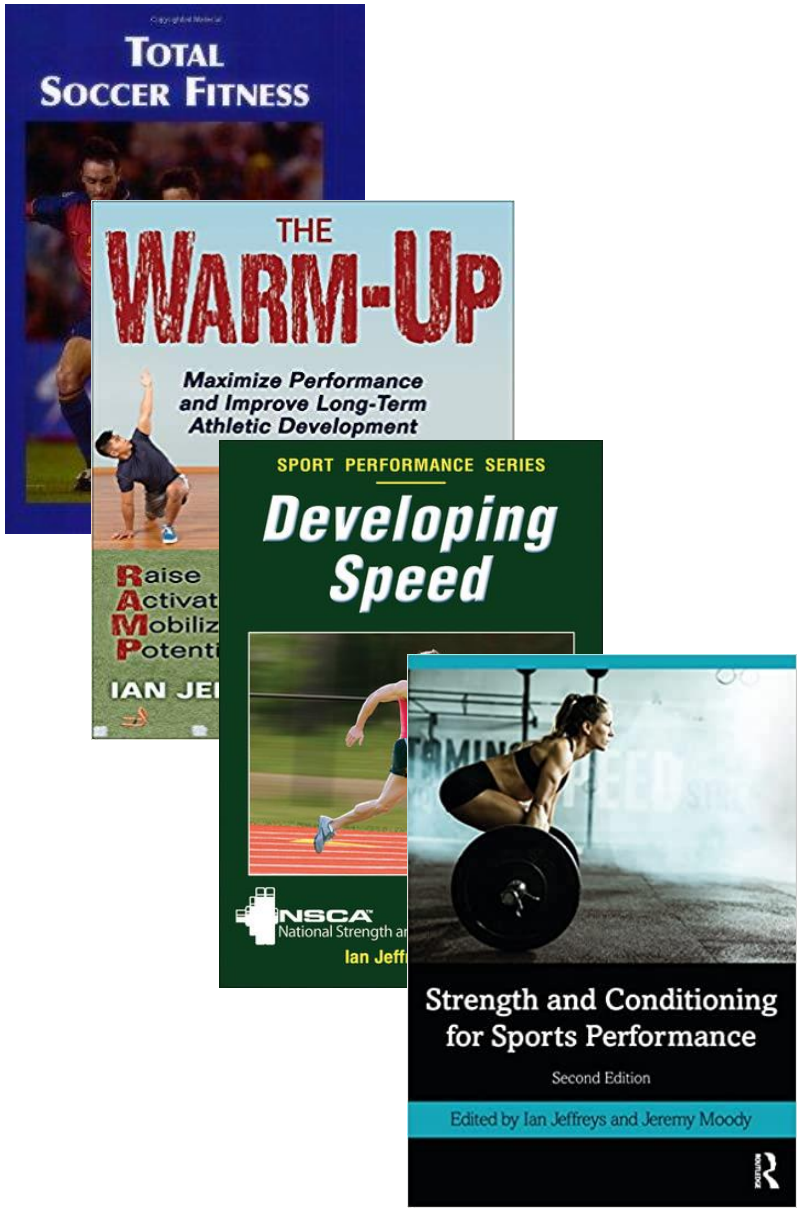
SUMMARY



Effective movement is crucial to performance

Using the concept of Gamespeed allows for a more contextual and comprehensive development model to be developed.

Applying the concepts and methods of the GAMESPEED system assists in the transfer from training to performance.



Thank you

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★ PERFORMANCE ★

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Thank You

GAELIC GAMES
COACH PATHWAY

GAA WHERE WE ALL BELONG

LGFA PEIL na mBAN

THE CAMOGIE ASSOCIATION
An Cumann Camógaíochta