



The Influence of Developmental Experiences on the Talent Pathway in Sport

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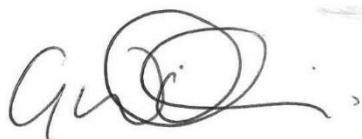
Student Declaration

Type of Award Doctor of Elite Performance (Sport)

School School of Health and Human Performance

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Dedication

This thesis is dedicated to my wife, Emma, and my son, Oscar.

Emma, over the past six years you have encouraged me to embrace the experience of completing this thesis and challenged me to find balance and perspective. This subtle mix is one I would not have found myself, so for this I am very grateful. I owe you lots and lots of time and attention!

Oscar, I thought studying for this doctorate would give me sleepless nights, but you have managed to achieve that. I would not have it any other way. I look forward to supporting you to develop the roots to grow and the wings to fly over the coming years.

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A big thank you to Áine for being a tremendous supervisor. Despite only meeting in person once, I have always been inspired (and overwhelmed a lot of the time) after our online meetings and truly believe this ‘supervisor rebound effect’ allowed me to keep the wheel spinning over the course of the past 6 years.

To my Mum, Dad, and Brother who are always truly supportive, encouraging, and interested in my university studies...all 13 years of them (3 for my undergrad, 4 part time for my masters and now 6 for my professional doctorate).

To my colleagues and the senior leadership in sport at Millfield School, thank you for supporting and investing in my professional doctorate journey. One of the Millfield School values is to be curious. I hope I have brought this to life through this thesis and my studies.

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Glossary & List of Abbreviations

Glossary & List of Abbreviations

Term/Abbreviation	Definition
TD	Talent Development
TID	Talent Identification and Development
TDEQ	Talent Development Environment Questionnaire
PJDM	Professional Judgement and Decision Making
PCDEs	Psychological Characteristics of Developing Excellence
YA	Youth Athlete
DDOs	Deliberately Developmental Organisations
DMSP	Development Model of Sport Participation
EC	Epistemological Chain
EL	Experiential Learning
IPA	Interpretative Phenomenological Analysis
PBs	Personal Bests
TA	Thematic Analysis
Developmental Experience	Experiences that can develop intellectual, psychological, emotional, and social domains in individuals (Bean et al., 2021)
Challenge	A Task or Situation That Tests an Individual's Abilities (Savage, 2019)

Glossary & List of Abbreviations

Most Difficult Challenge	A Major and Memorable Challenge That May Test and/or Disrupt an Individual's Development Over an Extended Period of Time
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Research Programme Outputs

Peer Review Journal Publications

Williams, G., & MacNamara, Á. (2020). "I didn't make it, but...": deselected athletes' experiences of the talent development pathway. *Frontiers in Sport and Active Living*, 2(24). doi:10.3389/fspor.2020.00024

Williams, G. G., & MacNamara, Á. (2021). Coaching on the Talent Pathway: Understanding the Influence of Developmental Experiences on Coaching Philosophy. *International Sport Coaching Journal*, 8(2), 141-152. doi: 10.1123/iscj.2019-0099

Williams, G. G., & MacNamara, Á. (2021). Challenge is in the eye of the beholder: Exploring Young Athlete's Experience of Challenges on the Talent Pathway. *Journal of Sport Sciences*. doi.org/10.1080/02640414.2022.2047503

Williams, G. G., & MacNamara, Á. (2022). Making Sense of the Challenge: Forecasting and Reflecting on Challenges on The Talent Pathway by Young Athletes *and* Their Coaches. *Journal of Expertise*. (Accepted for publication – February 2023)

National Conference Presentations

The Open University. 4th Annual Sport and Fitness Conference, March 2019. My Child: The Athlete – Youth Development in Sport. Oral Presentation: "I didn't make it, but...": deselected athletes' experiences of the talent development pathway. Williams, G., & MacNamara, Á.

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British Psychological Society. Division of Sport and Exercise Psychology Annual Conference. November 2022. Poster Presentation: Making Sense of the Challenge: Forecasting and Reflecting on Challenging Experiences on the Talent Pathway. Williams, G., & MacNamara, Á.

Abstract

Title: The Influence of Developmental Experiences on the Talent Pathway in Sport

Author: Graham Williams

It is well established that youth athletes are highly likely to encounter a range of experiences on the talent pathway that will accelerate and potentially derail their development. The aim of this thesis was to explore the influence of developmental experiences from both ex and current talent pathway youth athletes to understand the influence of such experience both in and beyond the talent pathway. Chapter 4 explored the talent pathway experiences of ex-talent pathway athletes through semi-structured interviews. The findings of Chapter 4 highlight the potential for talent pathways to facilitate positive and transferable developmental outcomes beyond the transition to professional sport. Chapter 5 explored the coaching philosophies of ex-talent pathway athletes, now coaching on a talent pathway. The findings highlighted the potential influence of the participant's own athlete experience on the talent pathway to support the development of the participant's coaching philosophy relative to optimising the learning and development of their youth athletes. Chapter 6 explored the most difficult challenges of eight young athletes on the talent pathway through a tracking approach. The findings emphasised the important role of coaches on the talent pathway to skilfully plan, prepare, and individualise challenging experiences to enhance the young athlete's capability to navigate the challenge. Chapter 7 explored how eight young athletes and their five talent pathway coaches experienced 'most difficult' challenges, as identified by the young athlete. Participants identified a range of psychobehavioural skills, the impact of the challenge environment and social support to aid in the young athlete's navigation of the experience. Chapter 8 provides specific implications for the research literature and coaching practice with a particular focus on the development, deployment, and transfer of skills and experiences on the talent pathway and the impact of the bespoke nature of challenging experiences on the development of talent pathway youth athletes.

Chapter 1: Introduction**1.1. Establishing context**

The pattern of selection onto and deselection out of talent pathways in sport sheds light on the dynamic nature of development and the range of factors that influence success in youth sport environments. Reflecting this, there has been considerable discourse surrounding selection onto talent pathways in recent years; young athletes are being recruited at an increasingly younger age (Baker, Schorer, & Wattie, 2018) into formalised and selective talent pathways. For this thesis and from this point forwards, a talent pathway in refers to the systematic and formalised operation of a pathway through structured selection, coaching, competition, and transition opportunities from the most junior to most senior chronological age groups. Selective refers to participants having to gain a performance criterion to enter the talent pathway (i.e., swimming time or golf handicap) or achieve selection through multiple rounds of trial events (i.e., selection camps in hockey, trial matches in rugby). Despite trends for increasingly younger selection onto such pathways, the low conversion rates of junior to senior performers in sport has been well documented. For example, only ~2% of youth athletes engaged in a range of talent pathways progress to achieve international honours as a senior athlete (Ackerman, 2013; Gullich, 2014; Honer, Votteler, Schmid, & Schultz, 2015). Gullich (2014) found an average annual turnover rate of 24.5% in all German youth elite football academies, with a probability of not being in a national age group programme five years after starting to be above 70%. In athletics, recent research has shown that only 9% of males and 13% of females ranked in the top 20 as UK senior athletes were ranked within the top 20 as under 13s (Kearney & Hayes, 2018). This trend is also present across Olympic sports such as swimming, volleyball, and judo where less than 30% of junior internationals progressed to compete internationally at senior level (Barreiros, Coté & Fonseca, 2014). In rugby union, 76%

of players competing at a national level as 13-year-olds did not compete nationally at under 18 (Durandt, Parker, Masimla, & Lambert, 2011). Clearly, the low conversion of athletes selected onto talent pathways to senior success is a consistent finding. Collectively, this data highlights the challenging journey that youth athletes take on the road to senior success and the low probability of achieving “elite” senior performance even when athletes show early signs of promise. It may be timely at this point to define the term elite in the context of this thesis. In accordance with the framework for classifying ‘eliteness’ by Swann, Moran, and Piggott (2014), the term elite will be used to define a range of seniors performers in the competitive elite, success elite and world-class elite classifications. For reference, competitive elite defines seniors athletes competing at the highest level in their sports (i.e., professional leagues, Olympic games), successful elite are those senior athletes competing at the highest level in their sports and experiencing success (e.g., winning a league or medal) and world-class elite senior athletes are those experiencing sustained success, recording repeated winning performances over a given period (e.g., medalling at consecutive Olympics; Swann et al., 2014). Of course, evaluating the talent pathway on one measure – output – fails to consider a number of factors related to talent development. On the one hand, examining the conversion rate through a quantitative lens (i.e., how many young athletes progress to become senior athletes) fails to consider either the process markers involved (i.e., the quality of initial selection and then development opportunities) or the qualitative nature of the output (i.e., the development experience). Regarding this second point, at the senior elite level of sport there are only so many spots available and therefore the number of opportunities to compete at that level cannot be determined by the athletes themselves.

Reflecting these factors, it would seem important to consider the process of talent development as a priority over the outcome of the talent development pathway. In this regard, the complex, dynamic and non-linear nature of development in sport has been well-established

in the research literature (Henriksen & Stambulova, 2017; Kilic & Ince, 2020; Martindale, Collins, & Abrahams, 2007; Savage, Collins, & Cruickshank, 2017) with athletes negotiating a range of developmental experiences that can potentially derail (Blakelock, Chen, & Prescott, 2016), accelerate (Savage, 2019), and provide rich experiences for future success on and beyond the talent pathway (Williams & MacNamara, 2020). Akin to the definition for opportunities to build life skills through youth sport by Bean, Shaikh, Kramers, and Forneris (2021), this thesis identifies developmental experiences as experiences that can “...develop intellectual, psychological, emotional, and social domains in individuals” (p. 1205). Paradoxically and perhaps reflecting the comments earlier concerning outcome measures in talent development, many talent development pathways maximise the support offered to young athletes to minimise the impact of potentially stressful and challenging experiences. This is often the case in the early years of their pathway journey where early success can act as a catalyst, providing the young athlete with more development opportunities, competition, and support that in turn may accelerate short-term success. While acknowledging the short-term benefits of this approach, these strategic decisions may have significant long-term implications, especially when considered against the growing research suggesting that personal development related to challenging experiences are associated to the deployment and acquisition of skills that can underpin future growth and elite performance (Collins & MacNamara, 2012; MacNamara, Button, & Collins, 2010a; MacNamara, Button, & Collins, 2010b). In this context, there is a need for work that deepens our understanding of the impact of the talent pathway on youth athletes and in particular, the impact on those athletes deselected from the pathway and those in their early years on the talent pathway. Interestingly, much of this research has typically focused on deselection as an event, with the focus on the impact of the deselection experience on the athlete (Blacklock et al., 2019; Milne & Neely, 2022; Neely, Dunn, McHugh, & Holt, 2016). Given the developmental trajectory of young athletes and

considering deselection as a process, an examination of how experiences pre and post deselection impact the outcome of the experience, would seem a useful way forward. Exploring pre and post deselection experiences may be especially useful from an applied perspective by supporting practitioners to consider the design of the developmental experiences offered to high potential young athletes at all stages of the pathway.

It is important at this point to operationalise several terms that have, and will be, utilised within this thesis. The use of the term trauma in talent development research in sport has gained popularity over the past decade (Collins & MacNamara, 2012; Collins, MacNamara, & McCarthy, 2016; Rees, Hardy, Gullich, Abernathy, Côté, Woodman, Montgomery, Laing, & Warr, 2016; Sarkar, Fletcher, & Brown, 2015). Authors have consistently defined trauma as the perceived disruption of an athlete's development caused by a memorable challenge (Collins & MacNamara, 2012; Collins et al., 2016; Rees et al., 2016; Sarkar et al., 2015). Given the importance of challenge in the definition of trauma, operationalising the term challenge is also important. Whilst authors in the field of talent development and trauma have not defined the term challenge in their work, the Oxford English Dictionary definition of challenge provides suitable clarity: a task or situation that tests someone's abilities. Reflecting the paucity of research on the challenge experience of youth athletes and recommendations to explore the temporal and prospective development of challenge in young athletes through longitudinal tracking (Sarkar & Fletcher 2014; Savage et al., 2017), Chapter 4 refers to the term "most difficult challenge". In this sense and drawing on the work of Savage (2019), most difficult challenge refers to major and memorable challenges that may test and/or disrupt a performer's development over an extended period of time. In the case of Chapter 4 and 5, a 5-month period which, in the development journey of a young athlete, represents a significant time.

1.2. Biographical positioning

On commencing this programme of study, I was employed as an Athletic Development coach in a UK independent school, Millfield School. I was ,and continue to be, accredited as a Strength and Conditioning Coach by the United Kingdom Strength and Conditioning Association. Millfield School is nationally and internationally recognised as a leader in the provision of sport to students aged 13-18 years. Approximately 25% of the circa 1300 school cohort are enrolled on a talent pathway in sport and between 50-60 students are of junior international level. This represents a high proportion of representative youth athletes for a UK school and has led to the school being labelled as a ‘talent factory’ (The Telegraph, 2016). Recently, I have been promoted to the role of Head of Sport Programmes and Student-Athlete Support at the same institution, a role that enhances my ability to positively impact the administration of sport and experiences through sport to youth athletes in this context. Moving forward, my professional ambitions are to progress to the position of Director of Sport in a UK independent school. In line with my background as a practitioner in the field of sport science, my ambitions are to continue to draw on the best available scientific evidence combined with practice-based evidence to inform the strategic and operational delivery of sport to youth athletes. My role as Head of Sport Programmes and Student-Athlete Support at Millfield School entails the leadership of a range of sport science disciplines within the department of sport, alongside supporting the Director of Sport with the strategic and operational delivery of sport more broadly. This role involves engagement with coaches and youth athletes across multiple sports and ability levels, as well as the youth athletes academic and pastoral support and parents/guardians. As referenced above, I also lead on the practical delivery of athletic development coaching at Millfield School. This balance of strategy development, operational delivery, and coaching in a leading UK talent development environment provides the opportunity to embed and bring to life principles and practices associated to youth athlete

development across a range of contexts in sport and alongside the challenges and opportunities present in a boarding school environment (i.e., training and competing at both school, national and international level alongside studying for academic qualifications whilst living on the school campus during time).

1.3. Aims and Objectives

Based on the need to better understand the role and impact of developmental experiences for youth athletes on the talent pathway, in addition to the applicability for talent pathway stakeholders who support the development of youth athletes in these environments, the aims of this thesis were:

1. To explore the influence of talent pathway experiences on life post deselection from the talent pathway.
2. To explore the coaching philosophies of ex-talent pathway athletes and the extent to which their philosophies were attributed to their pathway experience.
3. To explore what difficult challenges young athletes experience on the talent pathway and how they navigate these challenges.
4. To explore the forecasting and reflection processes utilised by young athletes and their coaches in the navigation of challenges on the talent pathway.

The following thesis objectives allowed the aims listed above to be achieved:

1. To understand how youth athlete's talent pathway experiences influenced their lives post deselection from the talent pathway.
2. To understand the meaning and purpose of talent pathway coach's coaching philosophies based on their experiences as a talent pathway athlete.
3. To identify what difficult challenges are experienced by young athletes on the talent pathway.

4. To understand how young athletes negotiated their most difficult challenges on the talent pathway.
5. To identify what young athlete forecast and reflect on to navigate difficult challenges.
6. To identify what the coaches of young athletes forecast and reflect on in supporting young athletes to navigate difficult challenges.
7. To provide practical recommendations for optimising the developmental experiences of youth athletes on the talent pathway.

1.4. Programme of Work

Through the progressive nature of the objectives and aims outlined above, this thesis explored the influence of developmental experiences for youth athletes on the talent pathway. This exploration took place in a step wise manner, initially exploring the experiences of deselected youth athletes and then exploring the experiences of young athletes at the very earliest stage of the talent pathway. Finally, the experiences of these young athletes were triangulated with the experiences of their talent pathway coaches.

Chapter 2 provides a critical and up to date review of the research literature pertaining to the influence of developmental experiences on youth athletes enrolled on talent pathways in sport. In the first instance, literature is provided to set the scene on the chances of transitioning to professional status via a talent pathway across a range of sport. The concept of the ‘rocky road’ of talent development is then presented. Finally, a review of research related to the cognition of developmental experiences, the role of psychobehavioural skills and the role of coaching practitioners on the experiences of the youth athlete are presented. Given the applied foundations and solutions focused nature of this thesis, Chapter 3 presents my methodology to deliver a practical research design, including my pragmatic philosophy. In accordance with aim 1, Chapter 4 implemented semi-structured qualitative interviews exploring the experiences of deselected youth athletes and the impact of their talent pathway experience on their life post

Chapter 1: Introduction

deselection. In line with aim 2, Chapter 5 employed semi-structured qualitative interviews exploring the coaching philosophies of ex-talent pathway athletes and how the meaning and purpose of their coaching in a talent pathway was influenced by their previous pathway experience. Based on aims 3 and 4, Chapter 6 employed two semi-structured qualitative interviews separated by five months. Chapter 6 explored the experiences of young athletes as they negotiated their self-identified most difficult challenge on the talent pathway. In accordance with aims 5 and 6, Chapter 7 employed two semi-structured qualitative interviews separated by five months. Chapter 7 explored how young athletes and their coaches forecast and reflected on the young athletes self-identified most difficult challenge on the talent pathway. In summary and in line with aim 7, Chapter 8 provides a general and concluding discussion on the findings of the preceding Chapters, presenting the theoretical and applied application. In doing so, Chapter 8 presents a direction of travel for future research in this area, as well as the strengths and limitations of this thesis.

Chapter 2: Developmental Experiences and the Talent Pathway

As highlighted in Chapter 1, the journey of a young athlete on the talent pathway in sport is dynamic and challenging (Gullich, 2014), with a low probability of successfully transitioning to senior professional sport (Ackerman, 2013; Gullich, 2014; Honer et al., 2015). Given this context, as argued in Chapter 1, a focus is required on the experience and process of the young athlete navigating the talent pathway and the support that can be provided to young athletes during this period. Given the nature of the developmental trajectories of young athletes and considering deselection as a process rather than an event, an examination of how experiences pre and post deselection impact the outcome of the experience, would seem a useful way forward. Accordingly, this chapter aims to review literature focused on the importance of the talent development environment, as well as a consideration of different developmental experiences on the talent pathway. This chapter will also review research on how young athletes navigate developmental experiences and the role of coaching on the talent pathway.

2.1 The Importance of the Talent Pathway Environment

There is considerable evidence that a range of environmental factors facilitate learning and development in youth sport (Henriksen, Stambulova & Roessler, 2010; Henriksen, Stambulova & Roessler, 2011; Martindale, Collins, & Abraham, 2007; Martindale, Collins & Daubney, 2005). Martindale et al. offer a range of principles that underpin effective talent development environments (2007), reinforced by data collected across a range of different development contexts (Martindale, Collins, Douglas, & Whike, 2013). Indeed, Martindale et al. (2007) defines effective talent development environments as, "...that which aids the development of those who have been identified as having potential." (p. 113). The key features of such environments were identified as 1. Long term aims and methods 2. Wide ranging coherent messaging and support 3. Emphasise appropriate development not early success 4.

Chapter 2: Developmental Experiences and the Talent Pathway

Individualised and ongoing development 5. Integrated, holistic and systematic development. Later, the effective talent development environment questionnaire (TDEQ) was developed (Martindale, Collins, Wang, McNeill, Lee, Sproule, & Westbury, 2010). The questionnaire was developed to support the development of talent from potential to elite standard by measuring developing athlete's experiences of their sporting environments relative to the "key features" of effective talent development environments.

Of course, the TDEQ is not intended to be used as a diagnostic tool; instead, Martindale and colleagues (2013) suggest that the questionnaire is used as part of a triangulated evaluation of the environment to inform practice and support a formative review process. Through the TDEQ, Martindale et al. (2010) describe a high-quality environment as one which present a 1. Long term development focus 2. Quality preparation 3. Communication 4. Understanding the athlete 5. Support network 6. Challenging and supportive environment 7. Long term development fundamentals. By applying these key features of the TDEQ in practice, Martindale et al. (2013) found a significant difference in "quality preparation" and "understanding the athlete" when assessing "high quality" versus "low quality" talent development environments. High quality development environments have been shown to focus on the growth of intrinsic motivation of the young athlete, emphasis the self-development of youth athletes, and have a long-term developmental focus with an emphasis on the process of development (Martindale et al., 2010). For example, Gledhill and Harwood (2015) explored the understanding of players' perceptions of a talent development environment in female football in the UK. The authors reported that positive perceptions of participant's football environment were founded on a focus on long-term development and robust support networks. In this sense, the focus of high-quality development environments is orientated around the process of developing the potential in the athlete. This process focused approach is akin to how would I conceptualise the deselection process from the talent pathway as highlighted in Chapter

Chapter 2: Developmental Experiences and the Talent Pathway

1. More specifically, talent development environments that emphasized fundamental skill progression in the context of long-term development, within a robust support network, have been shown to positively influence intrinsic goal striving (Wang, Sproule, McNeill, Martindale, & Lee, 2011). This developmental and supportive approach may be of importance given that striving to achieve an intrinsic goal has been related to an enhanced wellbeing, greater confidence, greater learning capacity, and reduced stress in youth athletes (Ivarsson, Stenling, Fallby, Johnson, Borg, & Johansson, 2015; Vansteenkiste, Simons, Lens, Sheldon & Deci, 2004). On the contrary, a focus on the pursuit of extrinsic rewards and goals (i.e., medal count, winning, achieving professional contract status) has been associated with a reduced level of perceived competence, autonomy, and relatedness (Vansteenkiste et al., 2004). As such, the design and deployment of a high-quality talent development environment is vital to support *all* youth athletes in optimising the development of a range of positive skills and capacities to help them navigate through and beyond the talent pathway, i.e., the talent pathway journey conceptualised as a developmental process rather than an outcome (deselection or professional contract). This is particularly important against the comments in Chapter 1 where the low conversion of athletes to senior success is considered. Simply, this body of research emphasises a focus on process rather than outcome as a hallmark of a quality TDE.

2.1.1. The Design and Operationalisation of Talent Pathway Environments

Of course, there are several organisational and structural issues that may impact the design and operationalisation of the TDE. Research has recently identified the need for coherence and integration of a development strategy for a youth athlete both within and outside of the talent pathway and in both a top down and bottom-up manner to optimise the design and operational delivery of talent development processes (Taylor, MacNamara, & Taylor, 2022). In this sense, although a TD practitioner is often operating independently (e.g., in a school, club or academy) a range of organisational top-down factors will impact policy and practice

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‘on the ground’. In fact and expanding the work of Martindale et al. who conceptualise the TDE as “...all aspects of the coaching environment...” (2007, p. 254), it is increasingly recognised that talent development happens across multiple settings and, therefore, involves multiple stakeholders. This is important, as even in settings that might seem tight and aligned (at least organisationally, e.g., schools) there are a range of systemic barriers that impact practice. This is especially true since high potential young athletes are likely to be co-existing in multiple worlds – school, clubs, academies, national pathways. From a holistic ecological perspective, Henriksen et al. (2010) define an athletic talent development environment (ATDE) as, “...a young athlete’s social relations both inside and outside of the world of sport.” (p. 213). The definition of an ATDE by Henriksen et al. (2010) extends the conceptualisation of the TDE proposed by Martindale et al. (2007) by employing a holistic approach. A holistic approach considers the social relations of the club/team and the broader context in which the club/team is rooted, in addition to the specificity of the sporting domain and sports coaching. Based on their definition of an ATDE, Henriksen et al. (2009) analysed the ATDE of the Danish national 49er sailing team. The authors identified the importance of considering athlete development across psychological, social, academic, vocational domains, in addition to development in the context of the sport. Henriksen et al. (2010) also identified the importance of considering the demands placed on athletes transitioning from junior to senior performance level across these spheres practice (e.g., psychological, social, academic, vocational), pointing to the importance of establishing coherence in practice from junior to senior sport and across coaching and practitioner disciplines. In this regard, Webb, Collins, and Cruickshank. (2016) discuss the importance of both horizontal and vertical coherence. Webb et al. (2016) describe horizontal coherence in talent development terms as stakeholders (e.g., coaches, physiotherapists, strength and conditioning coaches, parents, teachers) at a particular phase of the talent pathway practicing in an agreed and collaborate way. Vertical integration would be

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the extent to which these working practices are linked through phases and/or stages of the talent pathway. There is growing evidence that incoherence from both a talent development policy perspective and from a coaching perspective is a limiting factor on the processes essential to support athlete development on the talent pathway (Taylor et al., 2022).

2.1.2. The Multidimensional Nature of Talent Pathway Environments

Central to the conversation on coherence is whether the focus within the TDE is on long-term or short-term development and how this outcome influences decisions and processes within the system. This representation of TDE marks a move away from a consideration of environment as occurring in a single location to an understanding of talent development being influenced by multiple settings (Bjørndal & Ronglan, 2018; Taylor & Collins, 2021). This emphasis is particularly important for high potential young athletes who, because of their progress and potential, accrue a growing number of stakeholders interested in their development as they train and compete across multiple contexts. The nature of this collaboration, and importantly its impact on the developmental experience of the young athlete, has not received much attention in the literature (Mathorne, Henriksen, & Stambulova, 2020). In addition, Rongen, McKenna, and Cobley (2018) proposed the integration of the concepts surrounding deliberately developmental organisations (DDOs) into the field of talent identification and development. DDOs embrace the personal and professional growth of individuals as a key motivator to optimise working practice and productivity. The authors propose that TID could, and should, deliver a culture that is truly athlete centred, build autonomy and responsibility with the young athlete alongside optimising athletic performance.

A multidimensional approach of this kind corresponds well to the three worlds of participant engagement and development in sport and exercise as proposed by Collins, Bailey, Ford, MacNamara, Toms, and Pearce (2012). The three worlds approach to participation offers

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a fluid and developmental approach to consider individual achievement across the worlds of elite referenced excellence, personal referenced excellence, participation for personal well-being. The elite world defines excellence in terms of sporting performance, winning and competition against others. The personal world defines excellence in terms of personally referenced achievement. Finally, the participation world defines excellence in terms of self-satisfaction beyond sporting progress. Collins et al. (2012) propose that the three worlds can act dynamically, whereby individuals can move between worlds as and when required. The concept also provides a possible way forward for sporting organisations to deliberately support the positive engagement of youth athletes. Given the range of stakeholder influences, the potential impact these influences may have, especially when uncoordinated, and goal of developing an athlete centred, autonomous and dynamic culture, it seems important to consider how the influences and approaches of the “worlds” may impact a youth athlete’s talent pathway experience. Crucially, given the truism that for most young athletes they will transition to a life outside sport, it is also important that the impact of these inputs on the youth athlete’s life beyond the talent pathway is considered.

2.2 Considering Different Developmental Experiences on the Talent Pathway

The longitudinal development of youth athletes in sport has typically and historically been based on the premise that selected athletes have a sporting ability that is innate and that young athletes can improve their sporting ability through practice (Pichardo, Oliver, Harrison, Maulder, & Lloyd, 2018). A combination of innate ability and a high volume of deliberate practice is a common narrative for the development of youth athletes to elite senior performers. For example, Bayli and Hamilton’s long term athlete development model (LTAD; 2004) promotes a four (early specialisation) or six (late specialisation) stage model of athlete development from ages 6 years to retirement from sport. Both the four and six stage models are characterised by a linear progress from stage 1 onwards, with the previous stage being

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outlined as a pre-requisite for the next stage. Wylleman and Lavallee's model (2004), depicting the developmental perspective on transitions faced by athletes, provides a multidisciplinary overview of athlete development from childhood to adolescent. In their model, the authors consider the chronological development of athletic, psychological, psychosocial, and academic/vocational level. In relation to the athletic domain and akin to the LTAD model reference above, development is outlined in a phased and linear approach from initiation to development, mastery, and finally, discontinuation. In 2007, Côté, Baker, & Abernethy published the developmental model of sport participation (DMSP). Whilst the DMSP accommodated for two levels of performance in young athletes (i.e., recreational, and elite performance) and differentiated the phases of development for these performance standards, the DMSP also modelled a linear approach to development through sport from initial entry into sport through to possible outcomes such as elite performance, recreational participation and enhanced physical health and enjoyment. Notable limitations of this modelling approach that are common amongst the three examples provided above are, the requirement for development to occur in a linear fashion and in a stage-by-stage approach starting in early childhood or at the initial entry to sport. These limitations are particularly important to consider given the research literature presented in Chapter 1 and in the beginning of Chapter 2 through which it is evident that there is a low probability of a young athlete 'making it' to senior professional sport and the journey from young athlete to senior performer is commonly recognised as a challenging and non-linear journey. Such features of athlete development are not well characterised in the models outlined above. Therefore, this strengthens the need to better investigate and further understand the influence of developmental experiences on the talent pathway and their ability to potentially enhance or diminish a youth athletes' development in and beyond sport.

2.2.1. The Talent Pathway as a Rocky Road

Of course, understanding, anticipating, and proactively preparing for normative transitions experienced on the talent pathway is important. There are some normative developmental experiences on the talent pathway that can be anticipated, and proactively prepared for by managers, coaches, parents, and athletes alike. For example, the transition from the specialisation to the investment stage (Côté, 1999) requires athletes to engage in intensive, sport-specific programmes that are often accompanied with changes in the athlete's training (e.g., coaching, location, education) and competition (e.g., higher levels of competition) environments. This transition, which of course varies across sports, presents several challenges (i.e., selection, change in status, increased levels of competition) that can, if the young athlete is prepared for and supported through, act as opportunities and catalysts for development. These opportunities and catalysts may include access to specialist technical coaching support, access to sport science and medical provision, and funding for equipment and travel. In contrast, without appropriate and proactive preparation, these challenges can also potentially derail an athlete if they have not developed the required skillset or social support to cope effectively with the changes in their environment (Taylor & Collins, 2019) or indeed the confidence to deploy such skills and support in a timely manner. Importantly, working through these challenges at a foundational stage of the athletic journey has been shown to be good preparation for potentially more derailing experiences that can occur later in an athlete's development. Collins and MacNamara (2012) summarise the process of navigating the talent development pathway with the notion of 'The Rocky Road to the Top' emphasising the importance of difficult challenges on the talent pathway *and* the deliberate preparation and support required to learn and be prepared for the most challenging experiences. This deliberate preparation approach could enhance an athlete's self-perception of coping ability on the "rocky road". Following the work of Collins and MacNamara (2012), more research was published

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exploring the interaction of life trauma and sporting success. For example, Howells and Fletcher (2015) reported a correlation between life adversity and sporting success in elite level swimmers. Sarkar et al. (2015) also found adversity related to sporting, personal, and political domains were reported as being significant in the development of Olympic medallists. Such research supports the notion that experiencing a major life trauma could be a catalyst for success in sport. The Great British Medal Study (Hardy, Barlow, Evans, Rees, Woodman, & Warr, 2017) went further to propose that adversity related to non-sporting experiences is *essential* for an athlete's career development. This suggests that that performance level in elite sport could be discriminated by the severity and occurrence of significant life trauma. In contrast, Collins et al. (2016) advocate the influence of trauma in an athlete's career development and sporting success to be facilitated by the skills and experiences that the individual brings to the experience. Whilst there seems to be agreement that significant challenge can be a catalyst for development and that often, the most elite performers in sport have experienced such challenges on their journey to the top, less is known on young athlete's experience of challenges. In addition, there has been a lack of attention paid to the way that coaches of young athletes interpret the challenge experience. Therefore, capturing the developmental experiences of both young athletes and their talent pathway coaches may enhance the credibility and validity of the research findings in this area (Noble & Heale, 2019) by providing insights into the processes involved in preparing for and navigating challenging experiences. An enhanced credibility has been recognised as increasing the trustworthiness and believability of research findings, whilst an enhanced validity has been recognised as increasing the accuracy of the research findings (Cohen, Manion, & Morrison 2000; Joppe, 2000). Moreover, capturing these experiences in the moment of the challenge may also extend the literature base in this area which has previously been dominated by retrospective study

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designs and single time point data collection (Collins et al., 2016; Howells & Fletcher, 2015; Tedeschi & Calhoun, 2004; Savage et al., 2017).

2.2.2. Understanding the Deselection Experience on Talent Pathways

The increase in research exploring talent identification, skill development, sport specialisation and athlete development has been considerable in recent years. However, authors have highlighted important gaps in this body of research (Baker et al., 2018). In this regard and as an example, research has highlighted the importance of understanding talent development from the perspective of athletes who exit the system prematurely as a step towards minimising talent wastage and optimising the processes and experiences of all young athletes engaged in a talent pathway (Johnston & Baker, 2019). Survivorship bias in research literature occurs because of a focus on individuals, groups, or cases that have passed some sort of selection process while ignoring those who did not and is, unfortunately, a common limitation of research in sport. For example, research in TD has predominantly employed retrospective methodologies to examine and understand the developmental trajectory of elite athletes. This methodological approach is perhaps understandable given the difficulties of conducting prospective research especially given the timeframe involved and the mortality rate of the selected sample. However, retrospective studies that focus on athletes who “survive the system” limits our understanding of the factors that underpin deselection or withdrawal from the system or the limits of the system in supporting athletes to stay in the system for longer.

As such, understanding the perceptions of deselected youth athletes would seem to be a valuable starting point for understanding the influence of developmental experiences on the talent pathway and the potential for those experiences to contribute to the development of the youth athlete more broadly. It is important to acknowledge that in some sports (e.g., soccer) there are significant financial implications associated with player development and these factors drive decisions at all levels of the talent pathway. Even at a participation level of sport,

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there can be “turf wars” over young participants and despite the evidence supporting diversification as a condition supportive of development, the structures and systems involved often drive athletes (at a young age) to select one sport over another. Previous research literature exploring the topic of deselection in youth sport has focused more specifically on deselection as an outcome. For example, Milne and Neely (2022) explored the emotions and coping mechanisms utilised by female dancers following deselection. According to the finding of the study, the social identities and motivation of the dancers was negatively influenced due to deselection. Brown and Potrac (2009) explored the deselection experience of young elite footballers. Brown and Potrac found that participants experienced a range of emotional disturbances through deselection, including anxiety, anger, and humiliation. Indeed, Brown and Potrac called for enhanced social support through professional football academies to support youth athletes who transition out of the sport. Interestingly, a literature review by Wilkinson (2021) explored the mental health challenges experienced by academy footballers following deselection. Whilst crediting the Elite Player Performance Plan (EPPP; Premier League, 2019) for providing education and funding support to assist professional academies with managing the deselection of youth footballers, Wilkinson was critical of the lack of compulsory psychological support within the EPPP. Moreover, Wilkinson explicitly references the advantage for integrating such psychological support before, during, and after deselection. Such an approach would go some way to redefine the deselection from a talent pathway as more of a process and experience through which the youth athlete can be supported to reflect on the skills, and experience, they may have gained.

Within this context and reflecting a focus on the development of all youth athletes engaged on talent pathways, there is a need to better understand what helped and who helped deselected youth athletes to optimise the potentially rich developmental experiences that can be accessed via talent pathways. There is a paucity of research on the personal development of

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deselected youth athletes in sport and the transfer of this development to life beyond youth sport. As such, there is potential to add to the talent development literature in this area by exploring how youth athlete's talent pathway experiences influenced their lives post deselection from the talent pathway. This may be particularly pertinent where deselected youth athletes have navigated the emotional stress of the deselection process (Neely, McHugh, Dunn, & Holt, 2017) and moved onto another stage of their lives (e.g., university and/or employment).

2.2.3. The Impact of Challenging Experiences on the Talent Pathway

Clearly, the key features of talent development environments that can be effective for supporting the development of youth athletes have been well defined, conceptualised, and assessed (Martindale et al., 2007; Martindale et al., 2010; Martindale et al., 2013). However, with a developing insight into the non-linear nature of the development of expertise in sport (Collins & MacNamara, 2012) and growing interest on the role of challenge in sport (Savage, 2019; Taylor, Ashford, & Collins, 2022), further exploration on the processes involved in preparing for, navigating, and reflecting on challenges on the talent pathway may be warranted. The limitations of retrospective research notwithstanding, research examining the developmental trajectories of athletes across contexts and sports has shed interesting insight into the experiences that appear facilitative of development. For example, Collins et al. (2016) noted differences in the linearity of the developmental trajectory of what they term “super champions, champions and almosts”. For reference, “super champions” were defined as currently or having been ranked in the world top three for at least four years and had won at least five medals at a world level, “champions” as ranked or having been ranked in the top 40 in the world and achieved no more than one medal at a world level and, “almost” as world or European junior medallists, but with no senior medal winning performances. The author's concluded that super champions experienced a range of developmental challenges as a key feature of their early development while ‘almosts’ in contrast reported a smooth, upward

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trajectory during the early stages of their careers. It may be important then to consider the mechanisms underpinning the benefits accrued through developmental challenges by these elite senior athletes. One possible mechanism identified by the authors was coping. Coping can be viewed through a stress and emotion lens (Lazarus & Folkman, 1984) applied to the demands of competition in sport. In this sense, coping can be seen as a mechanism by which athletes acquire new and improve current resources to manage and navigate future demands in sport (Crocker, Tamminen, & Gaudreau, 2015). Indeed, research in coping promotes coping to operate at both an intra- and interpersonal level and is influenced by factors such as the reappraisal of stress, resources applied to the stressor, as well as contextual features such as gender, personality, and culture (Crocker et al., 2015).

Given the notion that talent can benefit from developmental experiences and challenges (Collins & MacNamara, 2012; Collins et al., 2016), it seems pertinent to consider the importance of the scale and individuality of challenging experiences that can support youth development in sport. In fact, the consideration of individuality is important especially since it appears that it is what the athlete brings to, and experiences because of the challenge rather than the challenge itself, acts as a developmental mechanism. Reflecting the work of MacNamara et al (2010a; 2010b) who propose that psychological characteristics act as developmental mechanisms to support athletes to negotiate key developmental challenges, the literature suggests the importance of ensuring that athletes are equipped with the skills and environment necessary to learn, develop and “cope” (with reference to the mechanism of coping) from the experience.

2.2.4 The Athletes Interpretation of Challenging Experiences

Although previous literature has identified positive rebounds in perceived performance levels after memorable challenges (Savage, 2019), less attention has been paid to how young athletes define and interpret challenge as they develop. To this end, although some challenges

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may, at face value, appear mundane and ordinary, the athlete's interpretation of these events may be the defining factor (Collins et al., 2016). In this sense, authors have previously identified memorable challenges as those which were perceived by the athlete to disrupt their development (Collins & MacNamara, 2012). Indeed, positive psychological outcomes following challenging life experiences beyond sport have been reported. Specifically, research has highlighted that psychological outcomes such as motivation, a positive outlook and increased closeness of relationships can be developed (Park, 1999; Tedeschi, Park, & Calhoun, 1998). Several perceived benefits have also been outlined following large-scale challenging experiences in senior sport. In the case of injury, an enhanced psychological state, including motivation, perspective on sport and mental strength has been described (Udry, Gould, Bridges, & Beck, 1997; Hurley, Moran, & Guerin, 2007; Tracey, 2003), with athletes returning to competition at a higher level of function than prior to their injury (Wadey, Evans, Evans, & Mitchell, 2011). Moreover, Woolley & Fishbach (2022) explored the hypothesis that seeking discomfort can be a signal of personal growth and as such can increase motivation in tasks associated to personal development. Collectively, this body of literature affirms that for a challenging experience to potentially afford any future positive meaning or psychological benefit, the perception of the experience as disruptive may be a critical feature. In addition, there is potential that challenge seeking rather than challenge avoidance may be a positive feature of behaviour by individuals both inside and outside of sport to reap any potential benefit associated to the challenge. Interestingly, in the super champions paper described earlier (Collins et al., 2016), many of the self-reported challenges were initiated as a feature of the participant's engagement in the talent development pathway rather than contrived or engineered from coaches or parents. In that study for example, participant's reported the impact of challenges associated to psychological states such as, body dissatisfaction and depression, as well as externalised behaviours such as, self-harm and substance abuse. Following on from

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the key features of challenge experiences outlined above, the authors of the super champions study concluded that the high achievers presented with a clear plan and attitude to navigate their challenge, whilst those categorised as lower achievers presented a more reactive approach to their challenges. Indeed, high achievers were suggested to have engaged in an approach akin to positive proactive coping. This approach to coping has previously been described as multidimensional and future looking, involving processes surrounding goal setting and constructive beliefs to prepare for and engage with a stressor (Greenglass & Fiksenbaum, 2009). Interestingly and considering the research findings, Collins et al. (2016) propose early adolescence as a watershed for displaying proactive coping skills prior to engagement on formalised and selective talent pathway in sport. This presents an opportunity to explore the way in which young athletes make sense of challenging experiences on the talent pathway at a phase of the pathway journey commensurate with their early adolescent years. To align to the work of Collins and MacNamara (2012) and Collins et al. (2016), exploring the self-identified challenges of this cohort may be important to enable the exploration of the personal impact and influence of such challenges on the talent pathway and beyond.

2.2.5. The Impact of Reappraisal in Navigating Challenging Experiences

The theoretical foundations for the findings presented by Collins et al. (2016) were associated to the concept of cognitive reappraisal, with immediate discomfort enhancing factors such as engagement and perceived goal achievement. Gross (1989, 1999) previously identified cognitive reappraisal as reducing the emotional impact applied to negative experiences before these experiences occur. Thus, the reappraisal process has the capability to allow an individual to redefine discomfort as a more functional and positive construct (Brooks, 2014; Crum, Salovey & Achor, 2013). For example, Riepenhausen, Wackerhagen, Reppmann, Deter, Kalisch, Veer, and Walter (2022) completed a systematic review of 99 peer reviewed studies exploring the association of positive cognitive reappraisal with outcome-based

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resilience. The authors concluded that cognitive reappraisal is positively associated to several outcomes related to resilience and cognitive reappraisal can act as a moderator between stress and negative outcomes. Given these findings, Riepenhausen et al. (2022) proposed positive cognitive reappraisal as a resilience factor. In this sense, positive cognitive reappraisal may be a valuable process for young athletes to utilise as they begin their journey on the talent pathway in sport given the associated challenging journey that is likely to lay ahead (Collins & MacNamara, 2012; Gullich, 2014). It is interesting to consider therefore, whether the difficult challenges and discomfort that young athletes are likely to experience on the talent pathway in sport can be a stimulus for motivating personal growth. Of course, given the status, experience, and knowledge of young athletes, it is also important to consider how significant others (e.g., coaches, parents) support the young athlete to navigate these challenges and experiences of discomfort and transform such experiences into signs of progress and development on the talent pathway. This points to the importance of understanding the ‘real-time’ interpretation of challenge from the perspective of young athletes on the pathway as well as the nature of the challenge itself. Indeed, and acknowledging a paucity of literature in this area, it may be important to identify the ‘most difficult’ challenges that are experienced by young athletes over an extended period in the transition from investment to specialisation years. Such information would provide the opportunity for coaching practitioners to prepare and support young athletes for such experiences.

2.3. Navigating Developmental Experiences on the Talent Pathway

Of course, experiencing developmental challenge is likely to cause a degree of disturbance for a young athlete and this may have both short- and long-term implications. Although young athletes will inevitably encounter a range of challenges as a feature of daily life, examining major and memorable challenges that test and/or disrupt a performer’s development over an extended period may be important. The developmental impact of such

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‘seismic events’ is thought to accrue because of significant cognitive disruption: challenging a person’s narratives, beliefs, goals and creating significant negative emotions (Calhoun & Tedeschi, 2006). Of course, the nature of this disruption is dependent on an individual’s perceptions and interpretations of the challenge and therefore experiencing something as ‘challenging’ rather than focusing on the severity of the event itself seems to be crucial (Savage et al., 2016). There is a growing understanding in the field of sport psychology that, in the context of beneficence (i.e., the consideration of intervention benefit against intervention risk and cost) supporting athletes to prepare for, monitor through, and debrief after challenging events has the potential to optimise growth and minimise disturbance (Wadey, Day, & Howells, 2020). As such, the ability of athletes to forecast, proactively negotiate, and then reflect on challenging experiences appears to be developmentally important. However, less is understood in talent development terms about what difficult challenges are experienced by young athletes (i.e., those athletes at the very earliest stages of their talent pathway journey), how young athletes engage in the process of forecasting, navigating, and reflecting on challenges, particularly at the time of the challenge experience, and the mechanisms which can support a focus on individual development, autonomy, and responsibility through the experience of the challenge. Moreover, little is known on the post hoc impact of developmental experiences on the talent pathway on life post the pathway. Such information may be fundamental given the low success rate of youth athlete to senior professional athlete (Gullich, 2014).

2.3.1. Psychological Skills Related to Developmental Experiences

The appropriate development and deployment of psychological skills should be a substantial component of any talent development pathway and particularly if there is a focus on learning psychological skills prior to experiencing challenges. Given the rocky road of talent development (Collins & MacNamara, 2012), embedding psychological skills into the talent pathway should offer youth athletes the potential to achieve within and beyond the talent

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pathway. In the context of development beyond the talent pathway, senior athletes have reflected on their ability to implement and refine psychological skills to engage with large-scale challenges along their development journey to professional sport (MacNamara et al., 2010a; MacNamara et al., 2010b; Savage et al., 2016). Literature from retrospective studies shows that those athletes who have made it to the very top of their sport utilised psychological skills such as self-awareness and commitment to overcome a range of challenges (e.g., deselection, loss of form, selection) on the talent pathway (Collins et al., 2016; Savage et al., 2016). Indeed, Sweeney, Horan and MacNamara (2021) published a perspective article critically appraising the research related to early engagement practices in football player pathways. Sweeney et al. (2021) stress the importance of developing psychological skills, given the low chance of making it to professional football, to support the opportunity for transfer between and development within sporting and non-sporting domains (MacNamara et al., 2010b; Taylor & Collins, 2019). In addition, Rongen, McKenna, Cobley, and Till (2021) examined the psychosocial outcomes of academy involvement in elite youth soccer players against aged-matched soccer-active counterparts. The results of the study suggested both sets of participants reported healthy and improving stress and recovery balance. In addition, the study reported that both groups reported positive and stable needs satisfaction and wellbeing (physical, psychological, and social). The study concluded that the commonly associated negative psychosocial impacts of academy involvement in soccer (Sothern & O’Gorman, 2021) did not materialise. This suggests that academy systems in soccer do have the potential to cater for athlete’s psychosocial needs across an extended period and that football clubs and development systems in the sport should adopt a holistic approach to player development with a focus on people (e.g., life skills) and player development (e.g., technical, tactical, physical, psychological). To further review research literature related to the psychological domains, notably cognitive, behavioural, and developmental psychology as associated to athlete

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development on *and* beyond on the talent pathway, I will use the Performance-Outcome-Process continuum proposed by Collins, MacNamara, and Cruickshank (2019). The Performance-Outcome-Process continuum will aid in critiquing what and how these psychological domains may contribute to the development process of a youth athlete. Associated to cognitive and behavioural psychology, Psychological Characteristics of Developing Excellence (PCDEs; MacNamara et al., 2010a; MacNamara et al., 2010b) will be reviewed. In relation to developmental psychology, life skills, as associated to Positive Youth Development (PYD), will be reviewed.

2.3.2. Performance Related to the Psychological Domains

PCDEs have been proposed as a psychological toolbox of skills that support the talent development journey in sport and can help optimise improvement in an individual's performance via practice (Orlick, 1996). More specifically, PDCEs have been defined as, "...mental skills such as imagery or goal setting but also include attitudes, emotions, and desires young athletes need to successfully realise their potential" (MacNamara et al., 2010a, p. 70). Saward, Morris, Nevill, Minniti, and Sunderland (2020) examined the development of PCDEs across a 20-month period in a cohort of 111 elite academy footballers aged 11-16 years. Saward et al. (2020) concluded that optimal progression on an academy pathway may be facilitated by a blend of PCDEs. In a sporting context, PCDEs have been shown to contribute to robust and positive pre- and in-event behaviours, enhancing learning ability, and increased personal and sporting development capacity (MacNamara et al., 2010a; MacNamara et al., 2010b). PCDEs have also been recognized as supporting the development of talent across a variety of domains such as music (Jarvin, 2017; Kamin, Richards & Collins, 2007) and academia (Zeidner & Matthews 2017), highlighting the utility of PCDEs across domains and specifically, domain specific performance improvement. It is important to note that the psychological skills akin to those referenced in the PCDE 'toolbox' (MacNamara et al., 2010a;

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MacNamara et al., 2010b) have also been proposed as transferable between sporting and non-sporting domains. For example, the findings of a Sport Scotland report titled, ‘Developing the Potential of Young People in Sport’ (Abbott, Collins, Sowerby, and Martindale, 2007; DPYPS) identifies the development and application of psychological skills, through the DPYPS programme, as beneficial for sports participation and performance, as well as participation and performance beyond sport (e.g., academia and the performing arts).

In comparison to PCDEs, life skills are defined as, “...intrapersonal and interpersonal assets (e.g., emotional control, goal setting, teamwork) learned or refined in sport that enables individuals to succeed in different life domains...” (Camiré & Santos, 2019, p. 28). The transfer and application of life skills *beyond* sport is critical to the success associated to PYD (Gould & Carson, 2008; Pierce, Gould, & Camiré, 2017), whereby ‘success’ in a different life domain is one of the outcomes associated to PYD. Importantly however, Pierce et al. (2017) identifies life skill transfer as an ongoing process not simply an outcome, thus the transfer and application of life skills could be conceptualised as both process and outcome orientated. For reference, PYD, “...represents a strength-based approach to development where the focus lies in promoting the strengths of youth.” (Camiré & Santos, 2019, p. 28). In comparison and as identified above, the purpose of PCDEs are to optimise an individual’s performance in a specific domain (e.g., the talent development domain in sport) *and* have been promoted as supporting transfer to domains outside of sport (Abbott et al., 2007).

2.3.3. Outcomes Related to the Psychological Domains

The importance of developing a range of psychological skills that can be selected, implemented, and refined appropriately to engage with difficult challenges has been identified previously (Joseph & Linley, 2005; Savage et al., 2017; Tedeschi & Calhoun, 2004). Interestingly and in this light, Edwards, MacNamara and Saward (2023) examined the PCDE

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profiles of 267 female field hockey players across a North American national talent development programme. Analysis revealed sub-group variation in PCDE profiles based on age, selection status, and the interaction of age and selection status. Additionally, under-18s and over-18s presented differences in PCDE profiles for characteristics such as imagery, active preparation, and perfectionist tendencies. As such, an awareness of group and individual level differences in PCDE profile may be important to optimise the use and development of a range of psychological skills in talented youth athletes. Savage et al. (2022) interviewed six senior international sports performers to explore outcomes from the application of psychological skills to negotiate and grow from challenging experiences in sport. The authors concluded that the deployment of a range of psychological skills enabled perspective in response to challenge, control of the response to challenge and belief in the response to challenge. The implications of such findings led the authors to stress the need for stakeholders in the development of talent in sport to emphasise the proactive development of psychological skills within their work. As such, ensuring young athletes develop, deploy, and refine a toolbox of psychological skills (e.g., goal setting, commitment, self-belief) that enable them grow through challenges may be of critical importance to their sporting development. This highlights an important question. Specifically, whether young athletes learn skills, such as psychological skills, prior to experiencing challenge or if challenges provide the experience from which these skills are developed. It may be timely, therefore, to explore whether psychological skills are the (or part of the) mechanism that enables deselected youth athletes to negotiate the deselection transition and optimise their potential in an alternative domain, particularly given the high chance of deselection prior to professional sport.

A body of literature currently exists examining life skill development through sport. Notably, Williams, Neil, Cropley, Woodman and Roberts (2020) reviewed the design quality and evaluation methods of sport-based life skills programmes for young people. The author's

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reviewed 13 research papers on sport-based life skills programmes. The research study assessed the design quality and evaluation methods utilised. In summary, Williams et al. (2020) found moderate to high quality programmes to have a focused intervention (i.e., programme focus was clear and life skill activities were embedded into the programme) and provide programme descriptions (i.e., explicit reference to a range of life skills such as communication, goal setting and self-talk). In addition, moderate to high quality programmes presented consistent and appropriate measures of evaluation (i.e., sampling strategy, data analysis and self-report data). More specifically, Woodruff (2016) explored the perspective of elite adolescent athletes in South Africa. Woodruff (2016) explored the athletes perspectives of their life skill needs and the identification of life skills deemed relative to support the athletes holistic development. Woodruff (2016) identified a range of life skills (i.e., skills relating to time management, self-esteem, and self-confidence) that were exhibited by the youth athletes both inside and outside the domain sport. In addition, Woodruff (2016) reported that the youth athletes benefitted from being on a sports programme that intentionally aimed to develop life skills. Interestingly, Yabunaka, Kametani, and Tsuchiya (2023) explored how coaching behaviours and athletes basic needs satisfaction or frustration are related to life skill development in a cohort of Japanese university athletes. Yabunaka et al. (2023) found that a range of life skills were perceived to be developed by the athletes, through competitive sport, when basic needs satisfaction was achieved. Yabunaka et al. (2023) found coaching behaviours orientated around needs-supportive coaching to positively affect the basic needs satisfaction of the university athletes. From the literature presented here, it may be interesting to consider the skills which deselected youth athletes identify as being developed on the talent pathway and transfer to alternative domains beyond sport. In addition, it may be interesting to explore youth athletes perceptions of the process of deselection prior to signing professional terms on skill development, such as those associated to life skills.

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Whilst the emphasis of this thesis is not explicitly on the evaluation of life skill programmes in youth sport, there does seem a lack of focus in the research literature on way talent pathway programmes are designed and evaluated to support the skill transfer process and the way in which skill transfer may be capable of supporting future development in the same domain (i.e., sport) and/or another (i.e., education). In this sense, more literature is needed, given the investment in talent pathways in sport (Premier League, 2019), on the way in which the taxonomy of skills akin to those associated to both PCDEs and life skills are accrued and used by young athletes on and beyond the talent pathway. Considering most youth athletes will not ‘make it’ to professional sport (Gullich, 2014), an exploration of such experiences may be important to enhance the sporting *and* personal development of young athletes in preparation for life beyond the talent pathway in sport. Importantly and in the outcome phase of the Performance-Outcome-Process continuum, Collins et al. (2019) identify the importance of deciding on the ‘deliverables’ of the outcome which aid in the athlete achieving their performance. Collins et al. (2019) identify two distinct, and potentially in some circumstances related, deliverable groups. One group is the taxonomy of psychological characteristics. One group is the specific psychological constructs. In the case of psychological constructs presented here, i.e., PCDEs and life skills, both constructs would more closely represent the taxonomies of psychological characteristics. In the case of PCDEs, this representation aligns to the original work of Orlick and Partington (1988) in which the authors describe PCDEs as a range of psychological skills, where by the range represents the value towards the critical determinants of development. Indeed, Collins and MacNamara (2017) recognised the value of PCDEs in the totality of the skill set and the inter skill similarities, more so than the specific psychological skills themselves. Such taxonomy of skills is also representative of the classification of life skills and indicative of the collection and range of intra- and interpersonal skills developed through PYD (Camiré & Santos, 2019).

2.3.4. Processes Related to the Psychological Domains

Interestingly and in relation to PCDEs (as well as other references to the use of psychological characteristics to support development in sport), authors have used the terms psychological and psychobehavioural skills interchangeably in their research (MacNamara et al., 2010a; MacNamara et al., 2010b; Savage, 2019; Taylor et al., 2022). Before exploring these domains further, exploring definitions of psychobehavioural skills seems relevant. Authors have previously defined psychobehavioural skills as the skills displayed because of, and through observable and measurable human behaviour (Foxall, 1987; Rothchild & Gaidis, 1981). More recently and in the context of sport, Laureys (2023) defined psychobehavioural skills as the thoughts (i.e., the psychological component) and the behaviours that help regulate an athlete's state of mind. Laureys (2023) suggests such thoughts and behaviours can support the optimisation of both practice and performance in sport. Indeed, the psychological skill component of psychobehavioural skills are thought to aid in reviewing, responding, and regulating behavioural skills in particular situations (Dohme, Backhouse, Piggott, & Morgan, 2017). This has been summarised coherently by Moodie, Taylor, & Collins, 2023 as they operationalise psychobehavioural skills as, "...the possession of psychological skills that are effectively and, with confidence, combined and applied to address various challenges (the behavioural element)." (p. 428). Therefore, it is appropriate at this point to conceptualise psychobehavioural skills as spanning both cognitive and behavioural psychology domains.

Given the information provided above, exploring the mechanisms underpinning both cognitive psychology (the psychological skill component) and behavioural psychology (the behavioural skill component) seems pertinent to understand the mechanisms underpinning psychobehavioural skills. Driven by executive function, cognitive psychology involves the higher order control processes of the brain that regulate emotional, motor, and cognitive activities (Kellogg, 2003). It is well established that there are three general executive functions;

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shifting, working memory, and inhibition (Kellogg, 2003). Shifting describes the ability to transition between tasks and associated mental sets. Working memory describes the utility of relevant information for a particular task. Finally, inhibition describes the deliberate and necessary inhibition of a dominant response. In this sense and fundamental to cognitive psychology is the mediation process or mental event, triggered by input from the environment, that drives a behavioural output. Therefore, the psychological component of psychobehavioural skills can be posited within the processes inherent in cognitive psychology, where by executive function and the utilisation of mediation provides the opportunity for an individual to enhance their task related performance relative to the inputs from the environment and the behavioural outputs required. With reference to behavioural psychology, the response (or observable behaviour) is clearly the key component (Jarvis, 2000). In this sense, human interaction with the environment provides the opportunity for learnt behaviours to be displayed. Theoretically, two conditions have been established to explain such displays of behaviour. One associated to classical conditioning whereby behaviours are learnt by association and secondly, operant conditioning where by behaviours are learnt by consequence (Jarvis, 2000).

Given the grounding of life skill development and transfer in PYD, it seems suitable to consider the processes underpinning PYD to understand the mechanisms that may allow youth athletes to develop through the acquisition and utilisation of life skills. In this sense, PYD is underpinned by developmental psychology (Benson, Scales, Hamilton, & Sesman Jr., 2007; Camiré & Santos, 2019; Geldhof, Bowers, Johnson, Hershberg, Hilliard, Lerner, & Lerner, 2013). Such an underpinning means the development of life skills is grounded in the interactions and relationships between the individual (i.e., in the case of this thesis, youth athletes) and the physical, social, and cultural environment which they inhabit (i.e., for the purpose of this thesis, the talent pathway in sport). Indeed, Camiré and Santos (2019) recognise the dynamic and adaptive nature of both the environment and human development as key

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features of PYD, providing the potential for positive change within youth (Holt, 2016; Lerner, Almerigi, Theokas, & Lerner, 2005). In this context, youth are seen to be capable to make meaningful and positive contributions to society by developing through activities which build life skills.

2.3.5. Forecasting Developmental Experiences

As recognised above, there is a body of literature in both senior and junior sport that advocates for the development of psychobehavioural skills to support the navigating of and reflection on challenging experiences (e.g., MacNamara et al., 2010b; Savage, 2019; Savage et al., 2022; Taylor & Collins, 2019). However, less research in sport and particularly in the context of the talent pathway in sport, has explored the concept of forecasting of challenging experiences. Given the promotion of applying skills to challenges and a developing understanding of the ‘bumpy road’ that youth athletes are likely to experience, forecasting may be a critical and under researched tool for preparing youth athletes to optimise their development on the talent pathway.

Literature in the field of health science suggests the scale and duration of physical and psychological change from baseline is poorly predicted by patients during severe health adversities (Halpern & Arnold, 2008). Therefore, the ability to learn to accurately forecast, reflect and then learn from significant life challenges seems to be a mechanism that can underpin the benefits accrued from these experiences. Authors have defined forecasting as “...the projection of future outcomes based on the actions taken...” (Mulhearn, 2018, p. 3). More specifically, research suggests that forecasting provides the opportunity to choose a direction of travel associated to a desired destination (outcome) based on the consideration of a wide and ranging number of causes influencing the success of the outcome (Mumford et al., 2015). Forecasting has also been recognised as a skill, one that can be developed and strongly contributes to performance outcomes (Mumford, Tood, Higgs, & McIntosh, 2017). Indeed,

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research into forecasting has shown that balancing both positive and negative considerations associated to outcome success provides best opportunity for situational analysis (Caughron, Antes, Stenmark, Thiel, Wang, & Mumford, 2011; Mulhearn, 2018). Viewing forecasting as a developable skill, i.e., the ability to improve in effectively thinking downstream, and in consideration of the research presented above, what may need to be considered is how young athletes use forecasting to aid in their navigation of challenging experiences on the talent pathway in sport. Given the associations between effective forecasting and performance outcomes (Mumford et al., 2015) and the lack of research related to forecasting in sport, it would be interesting to explore what projections young athletes make about their future outcomes in relation to their self-identified challenging experiences on the talent pathway. Specifically, what past experiences, current actions and future opportunities are explored to drive the forecasting process. More recent research proposes that active working memory supports affective forecasting (Frank, Iordan, Ballouz, Mikles, & Reuter-Lorenz, 2020). Frank et al. suggest that these findings are related to conjuring up, working with, and comparing emotional experiences to help acquire active working memory (Mikels & Reuter-Lorenz, 2019; Smith & Lane, 2015). Thus, it may be that forecasting capabilities are more optimal in those individuals who are better able to hold on to, and recall, prior emotions, and experiences. Therefore, forecasting may be optimised by comparing these feelings with potential future emotions, thus enhancing one's preparedness for future challenge experiences. However, no research has explored such concepts and an opportunity exists to explore forecasting in young athletes in the context of challenging experiences on the talent pathway.

2.3.6. Reflecting on Developmental Experiences

In contrast to the paucity of literature on forecasting challenging experiences in sport, there has been a relative plethora of literature exploring senior athletes' retrospective experiences of navigating challenges as a more junior athlete (Howells & Fletcher, 2015;

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MacNamara et al., 2010a; MacNamara et al., 2010b; Rees et al., 2016; Sarkar et al., 2015; Savage et al., 2016). Indeed, research literature has reported positive rebounds in athletic performance post challenge experience, whilst positive psychological outcomes following memorable challenges have also been reported (Park, 1999; Savage, 2019; Tedeschi et al., 1998; Wadey et al., 2011). Senior athletes have reflected on their development from challenging experiences through a skills-based approach. In this sense, authors have cited the importance of the application, testing, and adjustment of cognitive and behavioural skills that athletes bring to and utilise to proactively cope during large-scale challenges (Collins et al., 2016; Galli & Vealey 2008; Joseph & Linley, 2005; Savage et al., 2016; Tedeschi & Calhoun, 2004). Of note here is the reference to PCDEs in section 2.3.1. whereby a range of psychological characteristics were acknowledged as providing a mechanism by which to navigate challenging experiences across performance domains. There are, of course, issues with retrospective research such as recall bias and impression management; for example, participants in a number of these studies were on average 34 years old ($SD = 13.0$) at the point of reflection (MacNamara et al., 2010a, Sarker et al., 2015, Savage et al., 2016). Given that a young athletes' first memorable challenge has been reported to occur at circa 16 years (Savage et al., 2016), this leaves a potential 17-year gap between the experience of a first large-scale challenge and reflection on the impact of the challenge on development by the participants in these studies. Such a time lag in retrospective research is termed recall bias and presents a risk of recall error (Althubaiti, 2016). Recall bias has been investigated previously in the research literature and is understood to present a risk of either overestimating or underestimating recall (Coughlin, 1990; Moreno-Serra, Anaya-Montes, Leon-Giraldo, & Bernal, 2022). Solutions to overcome such bias include shortening the recall period and the use of memory aids (Althubaiti, 2016). What may be needed therefore is an extension of the current literature to consider how young athletes, at their very earliest engagement of the talent pathway, use reflection to aid

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their navigation of challenging experiences on the talent pathway at the time in which the challenge is occurring. It would be interesting to explore what reflections young athletes make about their experience of self-identified challenges on the talent pathway and specifically, what prior actions supported the navigation of the challenge experience and the impact of the reflection process on the young athletes perceived preparation for future challenges. Shortening the recall period, e.g., capturing reflection at a time point immediately at the time of the challenge and using memory aids, may be a suitable method to overcome the limitations of previous retrospective research on senior athletes as identified above.

2.4. Coaching on the Talent Pathway

Reflecting the complexity of the talent development process, the role and impact of the youth coach is beginning to attract considerable attention. Jowett and Shanmugan (2016) state, for example, that expert youth coaches possess the “...desire and capacity to unlock their athletes’ hidden potential in order to maximise their chances to achieve success” (p. 2). These authors go further to identify ‘relational coaching’, defined as the interpersonal relationship that allows the coach to open the door to more conducive and proactive coach-athlete interactions, as the key component of effective youth sport coaching. More specifically, higher quality coach-athlete interactions have been shown to influence perceptions of skill and competence in young athletes, resulting in enhanced self-belief and wellbeing (Jowett, 2008; Felton & Jowett, 2013). Authors have also found that a high-quality relationship between the coach and athlete is a strong predictor of personal, social, and cognitive skill development (e.g., Vella, Oades & Crowe, 2013). Given the critical role of high-quality coaching in supporting young athletes to fulfil their potential, the large financial investment in talent pathways over the past decade, and the growing literature base on the role and impact of youth sport coaches, understanding the philosophical positioning and developmental experiences of pathway coaches is an important next step in further understanding the meaning and purpose of coaches

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in this domain. Given the evidence provided in Chapter 1 and in Chapter 2, the role of coaching on the talent pathway is significant in providing support for the personal and sporting development of youth athletes on the talent pathway. In fact, and in this context, this also suggests the importance of moving beyond an emphasis on coach-athlete relationships towards a consideration of the process of coaching young athletes. Therefore, and reflecting the broader coaching literature (Callary, 2021), the emphasis has been on aspects such as coaching knowledge, the outcomes of coaching and coach development with less of a focus on how the coaching process supports the development experience and the skills an athlete needs to optimise the experiences of the talent pathway in sport. A focus on the “how” of the coaching process would advocate an exploration into coaching philosophy as a means of inquiring why coaches do what they do.

2.4.1. Understanding Coaching Philosophy

Coaching philosophy has been described as critical to guide coaching practice, help understand the behaviours of coaches and a bedrock of coach education (Cassidy, 2009; Gilbert & Trudel, 2001; Jenkins, 2010). However, given the importance of coaching philosophy in informing coaching practice, the research literature identifies a lack of coherence and clarity on defining the term philosophy. For example, the term ‘coaching philosophy’ has been used in the research literature without explanation, meaning or interpretation (Bennie & O’Connor, 2010; Cassidy, 2010), with research literature often assuming a common interpretation of philosophy when applied in a coaching context (Cushion and Partington, 2016). A critical analysis of the literature pertaining to ‘coaching philosophy’ by Cushion and Partington (2016) has gone some way to enhance one’s understanding of philosophy in coaching. Fundamental to the authors critique was the proposal that philosophical enquiry has three central tenants. Firstly, ontology, questions associated with the nature of reality. Secondly, epistemology, questions associated with the nature of knowing. Thirdly, axiology, questions associated with

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value. In this sense, a deeper enquiry into coaching philosophy is seeking to understand a coach's meaning, a coach's being, the origin of a coach's knowledge and the values which guide a coach's standards. In the context of coaching on the talent pathway in sport, it could be proposed that a deeper understanding of the philosophical positioning of coaching on the talent pathway may shed light on the ways in which coaching stakeholders could promote the optimal development and support for youth athletes through coaching. In doing so, this may provide a catalyst for optimising both the sporting and personal development of youth athletes on the talent pathway and give coaches a clear reference point for considering their meaning, optimising their knowledge and standards in this context.

2.4.2. The Multifaceted Nature of Talent Pathway Coaching

The multifaceted nature of youth coaching has been increasingly acknowledged in the research literature with the coach seen as an educator, a flag bearer for values, and as a source of knowledge for coaches and athletes alike (Cruz & Kim 2017; Lara-Bercial, Porem, Gamito, Lubowa, & Rosado, 2017b). More specifically, Lara-Bercial and McKenna (2017) found that effective youth coaches focus on the personal development of young athletes and, as a result, express genuine care, high expectations, and transformational coaching behaviours. There is growing recognition that effective youth coaching provides young athletes with a development environment that promotes the acquisition of the broad range of physical, technical, tactical, and psychobehavioural skills required to fulfil an athletes' potential with a long-term performance focus (Collins, Cruickshank, & MacNamara, 2019). As such, the interpersonal dimensions of youth coaching and how this impacts young athletes' ability to navigate development opportunities is important to consider. Importantly, this represents a move away from descriptive accounts of the coach-athlete relationship (Jowett & Shanmugam 2016) towards an examination of what elements of the coaching experience are adaptive of the development experience (Taylor et al., 2022). For example, Taylor et al. (2022) found that both

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professional and deselected athletes reported their most impactful coaches, those coaches who contributed most to their development, to deliver a range of ‘hard’ and ‘soft’ interpersonal skills. Described by the authors as ‘tough love’, this approach was reported to contribute to the players navigating and benefiting from the challenging environment of high-performance sport. Importantly, and as per the case in this study, the reflective ability of the participants was the catalyst for considering the beneficial effects of a ‘tough love’ approach to coaching support. This points to the need to support the development of reflective skills by youth athletes on the talent pathway to optimise the experience of ‘hard’ and ‘soft’ interpersonal approaches to coaching.

It would be naïve to assume that delivering ‘tough love’ through coaching is a simple process. To optimising the application of ‘hard’ and ‘soft’ interpersonal skills, it is assumed that the coach must make a series of decisions around why, how, when and what to do and/or say to optimise the development of their youth athletes. Such a process aligns to the concept of Professional Judgement and Decision Making (PJDM; Abrahams & Collins, 2011). Collins & Collins (2021) describe PJDM as the judgements and decisions involved in the coaching process occurring pre, circa and post a coaching interaction. Importantly, Collins and Collins (2020) highlight that the quality of the coaching outcome through PJDM is a direct consequence of the interaction between coaching knowledge, awareness of one’s coaching context and experience in critical reflection. The application of PJDM has been researched widely in adventure sport coaching (Collins & Collins, 2015, 2016, 2017; Collins, Collins, & Grecic, 2015). In 2017, Collins and Collins explored the in-action use of PJDM by high-level adventure sport coaches. The author’s concluded by questioning if coaching of this type should continue to be assessed, developed, and delivered via a competency-based approach. Instead, Collins and Collins suggest that, given the adaptability and flexibility required in supporting learners in adventure sport, a more nuanced approach should be taken to account for the

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expertise required to optimise coaching knowledge, coaching context, and critical reflection. Given the nuanced developmental journeys of youth athletes on the talent pathway as described in Chapter 1, it may be important to consider how the judgement and decision making of talent pathway coaches provides the potential to elevate the support for youth athletes on the talent pathway. This may be particularly relevant in the context of supporting youth athletes to prepare for, navigate and reflect on challenging experiences. In this sense, it may be interesting to explore how talent pathway coaches knowledge (in part constructed by their previous experience as a youth athlete), coaches awareness of a youth athlete's development on the talent pathway and coaches ability to forecast and reflect on challenging experiences for a youth athlete provides a basis for optimising support for talent pathway athletes. In this sense and recognising a gap in the research literature, triangulating the experiences of young athletes with those of their coaching practitioners may be particularly important given the role that coaches play in supporting youth athletes (Jowett & Shanmugam 2016). More specifically and akin to the importance of the constructs of a coaches judgement and decision making as identified above, exploring which psychobehavioural skills coaches think young athletes use to aid in the navigation of challenging experiences would enhance the credibility of findings when triangulated against the youth athletes themselves.

2.4.3. The Importance of Feedback in Talent Pathway Coaching

Research has identified the importance of diverse, accessible, and coherent support in talent development (Mathorne et al., 2020). Evidence in elite youth football suggests talented youth athletes who interpreted their club as supportive reported lower stress and higher wellbeing (Ivarsson et al., 2015). More specifically, the importance of athletes receiving support from their social networks at the right time, in the right context and by the right means has been highlighted as an important feature of both wellbeing and development (Gledhill & Harwood, 2015; Larsen, Alfermann, Henriksen, & Christensen, 2013; Savage et al., 2017).

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Despite this understanding, less is understood about how young athletes seek and use support to navigate difficult challenges (i.e., who helps and more importantly, what they do to help). Taylor et al (2021) explored the number of feedback providers and the coherence experienced because of feedback processes in English rugby league players. Taylor et al. further explored how feedback influenced the rugby league players experiences pre and post their transition to senior professional sport. Specifically, the authors found between 11 to 24 stakeholders offered feedback to players during the junior to senior transition. The authors went further to propose that the feedback these players experienced was either incoherent or contradictory at the various stages of their development journey. The findings of the study suggested the feedback from academy coaches was less impactful as players progressed through their talent pathway journey. This highlights the multifactorial and nuanced nature of feedback for athletes on the talent development pathway and points to the importance of considering what feedback is said, how it is said and where it is said (Molloy, Boud, & Henderson, 2019; Tai, Ajjawi, & Boud, 2018). Given that young athletes in the early stages of their pathway journey will have relatively little prior experience of receiving feedback from talent pathway coaches and likely have a reliance on social support as a key feature of their environment, feedback may be critical in the context of supporting young athletes in the early years of the talent pathway. Therefore, coach's reflexive ability to consider a youth athletes readiness for, ability to navigate and then reflect on challenging experiences on the talent pathway may be a critical feature in providing coherent and impactful feedback to support an athlete's immediate and longer term development. In addition and given the range of social support utilised by senior athletes to navigate challenging experiences in the transition to professional sport (Taylor et al., 2021), it may be important to consider the range of social support that young athletes identify as supporting their navigation of challenging experiences on the talent pathway. Considering the range of social support in this way may help identify social support that is associated more

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directly to the talent pathway (i.e., coaches, and peers on the talent pathway) and social support associated away from the talent pathway (i.e., family, and non-sporting peers). Finally, it may also be important to gain further understanding on the specific role that supportive stakeholders play in supporting youth athletes pre, during and post challenging experiences. Information of this type would help build a more holistic understand of how, for example coaches, peers in sport, as well as family and peers outside of sport can contribute towards the developmental experiences of talent pathway athletes.

Chapter 3: Research Philosophy and Methodological Approach

3.1. Introduction

Based on the research aims and objectives detailed in Chapter 1 and expanding on the literature review provided in Chapter 2, Chapter 3 outlines my research philosophy underpinning this thesis and outlines the methodological approach applied in the research studies. The ontological, epistemological, and methodological viewpoint of the researcher provides the reference point for choosing a research paradigm. As such, ontology relates to the study of being (Crotty, 1998). In this sense, ontology is concerned with ‘what is’ and a researcher needs to establish an ontological position on how reality works and how things are in real terms (Scotland, 2012). Epistemology relates to how we know what we know (Crotty, 1998). Hamlyn (1995, p. 242) defines epistemology as, “...the nature of knowledge, it’s possibility, scope, and general basis.” Every research paradigm is founded on a set of ontological and epistemology beliefs and each paradigm, therefore, has a different set of assumptions surrounding reality and knowledge. These assumptions provide the scaffolding for a particular approach to research. This approach is reflected in the methodology. Scotland (2012) describes the methodology as being, “...concerned with why, what, from where and how data is collected and analysed” (p. 9). In the context of this professional doctorate thesis, Barnacle (2012) describes the practitioner-researcher as having the opportunity to challenge and develop their own and others professional practice, alongside the testing of practically meaningful research questions. Based on the research gaps identified in Chapter 2, combined with the aim of producing practically meaningful research and my position as a practitioner-researcher, the studies in this thesis were founded on a pragmatic research philosophy (Giacobbi, Poczwarcowski, & Hager, 2005). An overview of pragmatism as a research philosophy is detailed below. It is important to note that this philosophy provided the basis for selecting the methodological processes that were used in this thesis.

3.2. A Pragmatic Research Philosophy

Pragmatism serves as a function to a purpose, blending outcomes and actions (Simpson, 2009). In this sense and for the purpose of this thesis, Pierce's pragmatic maxim applies where by pragmatism is conceived as, "...a rule for clarifying the meaning of hypotheses by tracing their 'practical consequences' – their implications for experience in specific situations." (Legg & Hookway, 2021, p. 2). As such, a pragmatic approach to research inquiry has been identified as the production of actionable knowledge, that is useful, enables problem-solving (Corbin & Strauss, 2008; Feilzer, 2010) and is consequently grounded in the experiences of respondents. In this way, a pragmatic research philosophy is driven by the nature of the research question, the research process, and the consequences of such enquiry (Giacobbi et al., 2005). In a pragmatic approach to research, the transferability of the results is deemed to be important (Morgan, 2007). Indeed, the synthesis of theory and practice has been identified as critical for pragmatism to inform real world practice. This is deemed fundamental to pragmatism's value in research, in that the research questions focus on practice and process (Simpson, 2018).

From an ontological perspective, Peirce's position on truth was as a means to understand a concept (Legg & Hookway, 2021). In this sense and ontologically, a pragmatic approach enables the researcher to focus on probing the importance and impact of research based on the practical implications of the research data (Morgan, 2014). Importantly and as acknowledged by Pierce, the practical impact and implication is the ultimate goal or fulfilment (Legg & Hookway, 2021). Epistemologically, a pragmatist approach, as promoted by Peirce, enables a focus on the exploration of process and practicality (Feilzer, 2010; Legg & Hookway, 2021), enabling the researcher to interrogate the practical function of beliefs and ideas. As such, pragmatists are free from making a "forced choice dichotomy between positivism and constructivism" (Cresswell & Plano Clark, 2007, p.27) and are therefore free from committing to a specific epistemological view (Biesta, 2010; Giacobbi et al., 2005). Morgan (2007)

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promotes pragmatism as an approach that focuses on methodology and the relationship between epistemology and methods. In doing so, pragmatism establishes a centre position, with a range of methodological solutions to answer research questions (Johnson & Onwuegbuzie, 2004).

3.3. Selecting Research Strategies

From a methodological perspective, a pragmatic research approach implies researchers have the capability to deal with challenging, non-linear, and complex processes through flexible approaches to investigation (Kelly & Cordeiro, 2020). Indeed, pragmatism offers researchers scope to make choices on methods, “...in terms of carrying us from the world of practice to the world of theory and vice-versa” (Kelemen & Rumens, 2012, p. 1). A pragmatic research philosophy does not dictate the choice of research methodology, but instead provides a scaffolding to help inform which methods will be most practically appropriate (Feilzer, 2010, Morgan 2014; Tashakkori & Teddie, 2003). An important construct of a pragmatic approach to research design is the focus on the transferability of research and specifically the application of research (Morgan, 2007). Therefore, a pragmatic philosophical orientation allowed the researcher to focus on participant’s experiences and thus for the results to hold practical relevance to coaching stakeholders in the field of talent development in sport. Such an approach enabled clarity in producing the research objectives and aims outlined in Chapter 1. Indeed, my pragmatic research philosophy helped inform my approach to sampling participants for the research studies in which I focused on identifying participants who were experienced and information rich (see Chapters 4, 5, 6 and 7), with the capability to share experiential knowledge. Indeed, and applying our pragmatic approach further, in Chapter 6 and 7 a multi-methods design was selected incorporating qualitative interviews (including triangulation in Chapter 7) and a tracking approach at two time points separated by five months. This method

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enabled me to research an applied and topical issue in the context of talent development in sport (i.e., the navigation of challenging experiences by young athletes).

Importantly, I also considered myself as a co-constructor of knowledge and all stages of this study were supported by my own experiences of working within talent development pathways (Giacobbi et al., 2005) as a sport science practitioner, programme administrator and talent development researcher. For example, I have worked in the field of talent development in sport for 14 years and this experience impacted my positioning and methodological approaches. This reflects pragmatism's recognition that, when managed appropriately, researcher subjectivity can be used to support practically meaningful insights rather than generalised truths or purely subjective constructions (Giacobbi et al., 2005). In this sense, Chapters 4 and 5 focus specifically on deselected talent pathway athletes. The recruitment of deselected athletes reflects the termination of the talent pathway for youth athletes prior to identified athletes progressing to the status of senior and/or professional athletes. My role at Millfield School allows me to support and coach a high volume of youth athletes engaged on a talent pathway prior to deselection and be engaged in their support network at the time of deselection. Chapters 6 and 7 focus specifically on the recruitment of young athletes, and their coaches in the case of Chapter 7, at the earliest stages of their enrolment on a talent pathway. Again, my role at Millfield School allowed me the opportunity to support and coach a high volume of young athletes being recruited onto talent pathways at this stage of their development. In the case of Chapter 7, this allowed me to build relationships with the young athlete's coaches to enable their recruitment for this study.

3.3.1. Graphical Timelining

Graphical timelining is a method of allowing participants to chronologically arrange and express the significance and/or meaning of key life events (Patterson, Markey, & Somers,

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2012). Timelining during the interview process of qualitative research has been suggested as a viable method to enhance the context of participants narratives, enhance participants non-verbal communication, and build rapport between interviewer and participant (Kolar, Ahmad, Chan, & Erikson, 2015). Timelining has been utilised previously in the research of talent development in sport. For example, Taylor and colleagues (2022) employed graphical timelining with a cohort of professional and ex-professional rugby players to explore their experiences of psychological safety and coaching. MacNamara et al (2010b) also utilised graphical timelining to explore the role of psychological skills in the development of excellence in elite performers across a range of both team and individual sports. As such, the studies in Chapters 4 and 5 utilised graphical timelining to support the recall of participant experiences. This method was particularly relevant to Chapters 4 and 5 where participants were deselected youth athlete recounting their experiences as athletes on a talent pathway. Indeed, authors have promoted the use of timelining to enhance the accuracy and depth of retrospective recall (Drasch & Mattes, 2013) whilst supporting the rich description of a participant's experience, which has been noted as important in understanding an athlete's career in sport (Collins et al, 2017).

3.3.2. Semi Structured Interviews

Semi structured interviews were utilised in Chapters 4, 5, 6 and 7 to explore the experiences of participants on the talent pathway. In Chapters 4 and 5, semi structured interviews were utilised to explore the most meaningful events identified by participants on their graphical timelines. Adams (2015) describes semi structured interviews as, "...a blend of closed- and open-ended questions, often accompanied by follow-up *how* and *why* questions." (p. 493). Indeed, semi structured are recognised as being a suitable interviewing method when questions require follow up enquiry (Adams, 2015). This is particularly relevant when exploring the breadth and depth of experiences of participants during their time of the talent

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pathway. Authors have also proposed semi structured interviews to be advantageous for exploring the temporal sequence of experiences and events (e.g., selection onto, development through and deselection from a talent pathway in the case of Chapters 4 and 5) and participants views of experiences (e.g., challenging experiences in Chapters 6 and 7) (Culver, Gilbert, & Sparkes, 2012; Cresswell, 2003).

The questions for the semi structured interviews in Chapters 4, 5, 6, and 7 were formatted in an interview plan. Authors have acknowledged the benefit of an interview plan to assist in supporting the participants to optimise the natural flow and recall of their narrative (Pietkiewicz & Smith, 2014). Indeed, Rabionet (2011) highlights the importance of a well-structured interview plan to positively impact the process of conducting, analysing, and reporting the interview. Adams (2015) suggests an interview plan should be in ‘working progress’ throughout the interview. In this sense, each interview plan in this thesis consisted of key questions, whilst allowing scope for reordering of questions and the ability to reroute the interview based on perspectives offered by the participant and the judgement of the interviewer (Adams, 2105).

3.3.3. Tracking Studies

In Chapters 4 and 5, participants were asked to retrospectively recall their experiences on the talent pathway post deselection from a talent pathway. In Chapters 6 and 7 however, the participants were asked to share their experiences on the talent pathway both prospectively and retrospectively. In this sense, Chapters 6 and 7 used a tracking methodology to explore participant experiences of challenging experiences on the talent pathway in the moment of the challenge. Forms of tracking in longitudinal research methodology have been identified as supporting a researcher’s desire to understand why, how, and what changes happen over a particular time course (Holland, Thomsons, & Henderson, 2006; Neale and Flowerdrew, 2003).

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Authors have stated that such a tracking methodology has the unique capability to explore the dynamic and developmental nature of a phenomena (Kelloway & Francis, 2013), in the case of this thesis talent development in sport.

3.3.4. Triangulation

Chapters 4, 5, and 6 use a single demographic of participants (i.e., in the case of Chapters 4 and 5, deselected youth athletes and in the case the Chapter 6, young athletes on the talent pathway). In Chapter 7, participants were recruited from two demographics: young athletes on the talent pathway and their coaches. This research methodology has been termed data triangulation (Denzin, 1970). Data triangulation has been defined as, "...the collection of data from different types of people, including individuals, groups, families, and communities, to gain multiple perspectives and validation of data." (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014, p. 545) Triangulation has been suggested to enhance the accuracy and trustworthiness of a research study by combining elements of research methodology (e.g., in the case of Chapter 7, multiple participants) to overcome the potential for biases that may arise using single research methods (Cohen et al., 2000; Joppe, 2000). Indeed, triangulation has been proposed to aid in exploring and explaining complex human behaviour by providing a more balanced data set to the reader (Joppe, 2000) and more confidence in the research findings more generally (Rothbauer, 2008). As such, the use of data triangulation in Chapter 7 aids in exploring and explaining the experiences of young athletes during a period of challenge on the talent pathway.

3.4. Trustworthiness

As trust and rapport shape the process and outcomes of interviews (Sparkes & Smith 2009), the trustworthiness of the interview process was enhanced through my role in talent development in sport and as such, knowledge of the challenging nature of the talent pathway

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and an awareness of the themes being discussed. Several additional steps were taken during the data analysis stage to enhance the researcher reflexivity. For example, the first author maintained a journal to reflect on the process and identify how any subjectivity interacted with the data analysis process. Termed bracketing, Tufford and Newman (2010) suggest such a process allows the researcher to reflect more deeply on the data. In the context of this thesis the journalling process enabled me to examine my personal assumptions on the challenges that youth athletes experiences on the talent pathway and clarify my beliefs about the process of deselection from a talent pathway. In addition, the journalling process allowed me log and reflect on my personal experiences of supporting those youth athletes enrolled at Millfield School through their talent pathway journey. I felt this process provided a platform for me to reflect on my rationale for studies in Chapter 4, 5, 6, and 7 and broaden my perspectives on the process of deselection and youth athletes experiences of challenge on the talent pathway. A constant comparative process was also employed where my interpretation was challenged by my supervisory team acting as a critical friend (Corbin & Strauss, 2008). For example, my professional doctorate supervisor reviewed the annotated and coded transcript. This system was applied to all transcripts, expanding to integrate new concepts as they appeared, thus allowing referral amongst all transcripts (Smith & Osborn, 2003).

On completion of data analysis in each study, I utilised member checking; the process of findings being shared with participants to check to enhance the robustness and depth of findings (Smith & McGannon, 2018). Participants were sent their final transcript via email and asked to reply if they felt the transcript did not represent their experiences of on a talent pathway. The specific result of member checking has been provided in the methods section of Chapter 4, 5, 6, and 7. This information was reintegrated into the data analysis process for these participants. In addition, the first part of interview two for Chapters 6 and 7 was spent in discussion and reflection of the individual's results and interpretation from the first interview.

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This enabled the participants to reflect on their experiences in the period between the two interviews in greater depth and thus more easily recall the experience of their difficult challenge during this time.

3.5. Summary

Given the objectives and aims of this thesis as outlined in Chapter 1 and based on the need to better understand the influence of developmental experiences for youth athletes on the talent pathway, this chapter provides the rationale for the suitability of a pragmatic research philosophy for this programme of study. This philosophy complemented the aim of providing knowledge that is transferable and specifically, has practical application to coaches in the field of talent development. In this sense, multiple research methods were applied to satisfy the objectives and aims of this thesis. More specifically and in the methods section to Chapters 4, 5, 6, and 7, relevant research methods that are unique to that programme of study have been identified with the aim of enhancing the quality of research within each individual study. Finally, with the focus on my position as a practitioner-researcher (Barnacle, 2012), the quality, generalisability, and contribution of the findings of each subsequent study to applied coaching practice on the talent pathway is of paramount importance. In this light, Chapter 4 explores deselected youth athletes experience of the talent pathway, with a focus on the impact of pathway experiences on life post deselection.

Chapter 4: "I didn't make it, but...": deselected athletes' experiences of the talent development pathway

4.1. Introduction

Much of the research in TD has focused on the developmental journey of athletes who have achieved senior success, presumably to identify factors associated with successful progression (MacNamara et al., 2010a; MacNamara et al., 2010b; Rees et al., 2016). As referenced in Chapter 2, exploring the developmental experiences of athletes who were selected onto the pathway, but did not achieve at the level expected may be equally important. As such, understanding talent development using deselected athletes should provide insights into the developmental journey of this cohort. However, understanding and investigating the talent pathway experiences of deselected athletes has been historically challenging. Deselection research in competitive youth sport has gone some way to capture the experiences of young athletes cut from talent pathway. This body of deselection research has particularly focused on the outcome of deselection from the perspectives of the youth athletes, their social support, and their coaches (Avery & Rumbold, 2016; Neely et al., 2016; Neely et al., 2017). However, less of a focus in the research literature has been placed on the pre and post experience of stakeholders involved in the deselection process. Research has identified the shared responsibility of coping with deselection by athletes and their parents, by using cooperative actions to manage the emotional stress associated to deselection (Neely et al., 2017), deselection decision making by sports coaches (Neely et al., 2016), and changes in athletic identity following deselection (Avery & Rumbold, 2016). More recently, authors have explored why seemingly gifted youth athletes fail to achieve their potential in transitioning to senior professional status, identifying a lack of psychological resource, appropriate challenge, motivation, and maladaptive family inputs as causal factors (Rothwell, Rumbold & Stone, 2018; Taylor & Collins, 2019). In reality, and given the nature of talent pathways, opportunities

for youth athletes to graduate to professional sport will always be slim and only a small percentage will ever ‘make it’. Inevitably, the ‘dead bodies’ of talent development (i.e., those who do not progress to elite levels of performance) will continue to be larger in proportion. Reflecting this outcome, it is important to consider the process and mechanisms of the talent development journey rather than focusing on the outcomes of the pathway. Despite this, there is a paucity of literature exploring youth athletes’ experiences in and of sport post-deselection and the extent to which engagement in talent pathways may support (or not) individuals in life after youth sport. Therefore, and reflecting the points raised in Chapter 2, this is an important area of study given the dynamic and unpredictable nature of development and the low probability of achieving “elite” senior success (Gullich, 2014). The purpose of this study, therefore, was to explore the talent pathway experiences of youth athletes who were deselected from a pathway and to consider how those experiences influenced their life post deselection.

4.2. Method

4.2.1. Philosophical Positioning

The aim of this thesis was to develop practically meaningful knowledge about the talent development pathway in sport and, as such, our approach was driven by a pragmatic research philosophy (Bryant, 2009; Rorty, 1999). Details of a pragmatic research philosophy in relation to this thesis are outlined in Chapter 3. More specifically, this study embraces the experiences, realities, and reflections of a variety of individuals previously engaged in formalised and selective talent development pathways in sport. Therefore, our aim was not to develop generalisable truths, but instead to provide practically meaningful insights about athletes’ experience of the talent pathway and the subsequent deselection process. As such, I was able to collect subjective evidence orientated around the lived experiences of those youth athletes who transitioned through the pathway but failed to make it as senior professionals. To do this,

a qualitative research strategy was adopted (Denzin & Lincoln, 2008) as this enabled the generation of a useful picture of the athletes’ experience and probe their experiences and perceptions in detail (Strean, 1998).

4.2.2. Participants

Ten participants were purposefully sampled based on their prior involvement (pre-18 years of age) in a formalized and selective pathway associated with either a professional rugby or cricket club in the UK. Rugby and cricket were selected as these are established talent pathways that lead to professional sport. Participants were sampled on the basis that they had been deselected prior to signing professional terms and were identified through personal networks. Participants were males aged between 20-25 years (M age = 20.6 years, SD = 0.7 years). Years of engagement in a formalised and selective pathway ranged from 2 to 9 years (M engagement = 5 years, SD = 2.4 years). Typically, athletes enter formalized rugby and cricket pathways at around 14-16 years of age and therefore, the timeframe of the athletes’ experiences is reflective of the realities of the sports selected. At the time of interview, participants had been deselected from the pathway for between ranged from 2 to 4 years (M years since deselection = 2.6 years, SD = 0.7 years). Additional demographic and sporting information can be seen in table 4.1.

Table 4.1 Participant Profiles

Chronological Age Range	Associated Sport	Age Group at Selection (Under)	Age Group at Deselection (Under)	Years in Talent Pathway	Years Post Deselection from Talent Pathway	Destination Post Deselection from Talent Pathway
20-25	Rugby	17	18	2	3	Higher Education
20-25	Rugby	15	18	4	4	Higher Education
20-25	Cricket	10	18	9	3	Higher Education
20-25	Rugby	15	18	4	2	Higher Education
20-25	Rugby	16	18	3	2	Higher Education
20-25	Cricket	12	18	8	2	Higher Education
20-25	Rugby	14	18	5	3	Full Time Employment
20-25	Rugby	16	18	3	3	Higher Education
20-25	Cricket	11	18	8	2	Higher Education
20-25	Rugby	15	18	4	2	Full Time Employment

4.2.3. Procedures

Following research ethics board approval and after receiving individual consent to participate and to be quoted within the final manuscript, participants engaged in an interview process to develop an understanding of their prior experiences during their time enrolled in their associated pathway. Each participant engaged in one 45-60 minute interview. The method used to collect and analyse the content of the interviews was thematic analysis (TA). This research approach was selected as it allowed the researcher to, "...see and make sense of collective or shared meaning and experiences" (Braun & Clarke 2012, p. 2) and identify, "...what is common to the way a topic is talked or written about and of making sense of those commonalities" (Braun & Clarke 2012, p. 2). This approach, therefore, is appropriate for

extracting the participant’s personal perceptions and accounts of their time in a talent development programme. In addition, it allowed the participants to interpret how these experiences may have influenced their future experience, despite not making it to the professional ranks in their sporting domain.

Semi-structured interviews were conducted with each participant. Based on the work of Bevan (2014), the key interview questions were structured around three elements. Firstly, descriptive questions allowing the participants to contextualize and extract their fundamental pathway experiences (e.g., Tell me about the time you spent in the talent pathway? What was the best/most challenging thing about being on the pathway?). Secondly, structural questions allowing the participants to engage in critical dialogue regarding more specific content of their pathway journey (e.g., Since leaving the talent pathway, which skills/experiences that you learnt/gained in the pathway have you utilised?). Finally, questioning based on imaginative variation (Giorgi, 1985) allowing the participants to explore their prior experience with enhance or adjusted terms (e.g., If you were to repeat your pathway experience again, what things would you do/you want the club to do differently based on what you know now?). Through imaginative variation, the researcher explored both concrete experiences and reflections on a variety of possibilities related to the participant’s meaning of their experiences.

4.2.4. Data Analysis

Interview transcripts were analysed predominately via an inductive approach to TA. This is a bottom-up approach, focused on deriving codes and themes from what is in the data (Braun & Clarke 2012). This approach to TA has also been acknowledged as being experiential in orientation, as well as essentialist in theory (Braun & Clarke 2012) and as such afforded me the opportunity to “give voice” to the experiences and meaning of the participants’ responses. Braun and Clarke’s six phase approach to TA (2006) was utilised during the data analysis

process. Firstly, I familiarized myself with the data before generating initial codes. Following this, the initial codes were collated into potential themes based on common features and then grouped together into higher-order themes based on the highest level of abstraction. Following this the themes were subjected to review and further refinements. In the final steps, the themes were defined and named by the authors according to the essence of the data codes within each theme. Reflecting the important of trustworthiness in the data analysis process, my supervisor reviewed all the annotated and coded transcript. When a discrepancy in interpretation was found, we referred to the original transcript, discussed the notes and themes and agreed on a consensus position. This system was applied to all transcripts, expanding to integrate new concepts as they appeared, thus allowing referral amongst all transcripts (Smith & Osborn, 2003).

Consideration was also given during the data analysis process to the trustworthiness of the analysis from the perspective of the participants. Member checking, whereby the findings were shared with participants for checking (Smith & McGannon, 2018), was employed. The member reflection process allowed participants the opportunity to provide additional insights and accounts to enhance the robustness and depth of findings. All participants were sent the final transcripts of their interview via email and offered the opportunity to reply with amendments if they felt the final transcript did not reflect their talent pathway experiences shared during the original interview. Three participants responded to provide additional information, adding detail and clarity to their final transcript. Notably, these participants responded to provide more specific details on the support systems embedded within their talent pathway, the use of goal setting and the diversity of the support network.

4.3. Results

Thematic analysis of the data highlighted three higher order themes (constructs of talent development environments, psychobehavioural skills development for future success and

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personal responsibility for future development) and 19 lower order themes. These themes are displayed in Table 4.2 and presented below with exemplar quotations used to illustrate the analysis.

Table 4.2 Thematic Analysis

Subtheme	Themes	Superordinate Theme
Inspiring training facilities Opportunity to train like a pro Insight into the demands of pro sport	High performance support systems (90%)	Constructs of Talent Development Environments (100%)
No slip in standards Optimising individual potential High performance behaviours	Expectations of professionalism (100%)	
A focus on the minority Favouritism clearly apparent Not the right ‘fit’ for the club	Elitist philosophy (100%)	
“Show me you care” Lack of coach-athlete relationship Atomistic support	Impersonal approach to development (100%)	
Make or break approach to performance Lack of pressure recognition from coaches	Pressure to perform (90%)	
A focus on winning Need to satisfy coach expectations Lifelong engagement in sport as a low priority	External focus of motivation (50%)	
Accept failure courageously Hard work as a non-negotiable Desire to prove people wrong	Determination to be successful (70%)	
A matter of choice Ability to weigh up all the options Ambition to be the best I can be	Willingness to make sacrifices (80%)	
Taking responsibility for one’s schedule Managing the balance between sport and academia Personal consideration for overall wellbeing Structure as a necessity	Time management skills (100%)	
Clarity in communication Open and honest interactions Consistency of expectation in communication	Effective communication (80%)	
Ability to integrate into a range of social settings Optimising the dynamics of the team Contributing to mutualistic relationships	Social awareness and maturity (100%)	Psychobehavioural skills for future success (100%)
Owning the goal setting process Knowledge of what it takes to succeed	Goal setting (90%)	
Belief in one’s ability Focus on expressing myself through sport Willingness to take a risk	Confidence to back myself (70%)	
Enjoyment of playing sport Internal focus of motivation	Personal satisfaction (90%)	
Establishing the right work ethic Making a purposeful contribution to the team Owning the decision-making process	Accountability for one’s development (100%)	

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Making the most of every opportunity Investing in personal development Doing the extras High expectations of one’s self	Commitment to be the best you can be (90%)	future development (100%)
Desire to achieve a personal goal Freedom of choice to define what success looks like	Intrinsic motivation to succeed (90%)	
Significant others who believed in me Significant others who helped me Importance of establishing a diverse support network	Support mechanisms to fulfil potential (100%)	
Learning takes time and effort “Shoulda, woulda, coulda” Critical self-analysis of areas for improvement	Self-reflection (100%)	

4.3.1. Constructs of Talent Development Environments

All the participants reported how a variety of talent development constructs influenced their development during their time in the talent pathway. Exposure to high performance support systems was identified by nine participants as being both a positive and enabling part of their development. Participants referenced the opportunity to train like a professional sportsperson and the inspirational nature of the training facilities, both structurally and motivationally, that they were exposed to. For example, Participant 10 identified that they enjoyed:

...getting involved in the professional environment, seeing the standards which the pros have. Getting put in that environment was good for my head, good for the way I thought about myself, my rugby, my skills as a number nine. It was massive.

In addition, the talent development environment was noted as providing an insight into the demands of professional sport by four of the participants. Typifying this, Participant 7 commented, “We would run through a professional rugby player’s day. Train on field, do a gym session, have lunch, receive nutritional information. It was all very professional.” Indeed, previous research has explored the transitional ‘culture gap’ between senior professional and junior academy level sport (Relvas, Littlewood, Nesti, Gilbourne, & Richardson, 2010), with authors proposing that early exposure, normalizing operational mechanisms, and the ability to adjust to explicit practices as vital to navigating this ‘gap’ (Morris, Tod & Oliver, 2014; Roynesdal, Toering & Gustafsson, 2018). The value and transferability of these formative experiences in a talent pathway to experiences in other areas is supported by literature from the business and academic domains in which reciprocal engagement, effective work inductions and the regulation of professional practice has enhanced transition success (Pentland, 2012; Shockley, Watlington & Felsher, 2013). Indeed, Participant 1 stated:

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Training with the pros at their training base, it was the sense that you were almost professional. The coaches were in the kit, you were using the same facilities as the pros. It was a lot different to just playing for school. It was all such a high standard. It was knowing what the standard was like and where you want to be. When I went to university (post deselection), my aim always to push on and get to the highest level in whatever I was doing. The academy programme gave me more experience in doing that and what it takes. That professional attitude put me in the mind set of, right, do your work, revise hard and you do it because at the end there will be benefits.

It may be therefore, that the ability of youth athletes to experience and normalize the context of a professional domain during their time in a pathway, can genuinely support the long term success of those who ‘make it’ in sport *and* those who do not.

Exposure to high performance environments also exposed participants to the expectations of professionalism that was demanded of them by the sporting organisation. Seven participants referenced how the environment drove high performance behaviours, such as “no slip in” standards and an individualized approach to optimising potential as key mechanisms of progression. As a result, participants noted how this emphasis on displaying and maintaining high professional standards had a positive impact on them post-deselection:

From being in that environment, I think the difference between good players and really good players is the best guys get on with it and know what they need to do to improve. Their standards are so high. They take a lot of ownership of their game and improving their skills. I have definitely taken that away with me and applied it to other aspects of my life, such as my university studies. [Participant 6]

As referenced here, the impact of high-performance support systems at a macro level and expectations of professional behaviours at a micro level was portrayed to have a positive

transfer both during the participants’ time on the talent pathway and following their deselection. These findings mirror the work of Henriksen, Stambulova and Roessler (2010) in which macro and micro-environmental factors were proposed to impact the present and future capabilities of prospective athletes in both athletic and non-athletic domains. In addition, authors have recognized the need to create a positive motivational climate for youth athletes to reduce the risk of dropout and de-motivation in formalized and selective talent pathways (Rothwell, Rumbold & Stone, 2018). Finally, evidence suggests progress from youth to senior athlete may be hindered if youth athlete fails to display the expected high-performance behaviours and attitudes, as defined in the senior professional environment (Roynesdal, Toering, & Gustaffson, 2018). The findings from this study provide evidence to suggest how constructs of talent development environments, such as underlining values, beliefs and standards, have the potential to positively impact the personal development of those youth athletes who fail to progress to senior professional sport.

Contrary to these facilitative environmental constructs, participant also identified experiences that may have hindered future development. All participants referenced an elitist approach to programme delivery in which favouritism was apparent from the coaching staff towards the perceived “best players” in the squad. For example, Participant 6 stated:

I felt like there was quite a big divide between the programme I was getting and the opportunities I had versus some of the other players in programme. From my perspective, I felt we were all in the same boat, but at training sessions for example, coaches would spend more time with certain players. They would get filmed by the coaches and have a chance to talk about the footage. I felt most of the time I was just a net bowler.

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In addition, five participants acknowledged that they were not the “right fit” for the club that they were signed to:

It was obvious I was at the end of the journey with the club. At that point my Dad and I left the meeting. That was it for me. I was angry; I was putting in so much effort on and off the pitch. I thought I was good enough, I had played at the top age group level, but just because the coach did not take a liking to me, I did not get offered a deal. There were obviously some very good coaches, guys who had played at the highest level. It would have been great to get more from them. It felt like they were trying to change us to suit the way they wanted to play rather than improve us to give us the best chance of making it. [Participant 10]

Reflecting this, all of participants expressed how they felt that an impersonal approach within their pathway experience negatively impacted on their progression, both from a playing perspective and on their motivation and confidence in the sport. For example, six participants described the need for coaches to “show me you care” especially during difficult “release or retain” transitions on the pathway. In addition, seven of participants referenced a lack of coach-athlete relationship with their pathway coaches and how this impacted on their experience on the pathway. This finding is notable as Jowett and Shanmugam (2016) state, “...it takes two to bring about change such as skill development and performance success. Neither the coach nor the athlete can do it alone!” (p. 18). The 3+1Cs model for optimising coach-athlete relationships can be utilised as a reference point for appraising the perceived effectiveness of such relationships. The findings of this study suggest participants experienced a potential paucity of closeness, commitment, and co-orientation:

It would have been better if they wanted to get to know you and it would have been a better experience. It would have given you a better outlook. If people asked what it was

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like being in the academy, some might say it was good, some would not because they didn’t get to know us that well. I would like to think that if I was in the coach’s position, I would have wanted to get to know people, get them to where they wanted to be, but also be more personable about it. [Participant 1]

We did not get into those deep coaching conversations. The sessions were very open, week by week. We did not have clarity on what we needed to work on because there were so many players at training. I found it hard to feel like I was improving at the club. [Participant 4]

The discord between relational coaching (Jowett & Shanmugan, 2016) and the coaching experienced by the participants in this study is concerning given the plethora of literature endorsing the added value of productive dyadic relationships (Jowett & Shanmugan, 2016; Reeve, 2012; Rogat, Witham & Chinn 2014). These authors identify that coaching is more than directing an athlete to perform a task. The coach, and a positive coach-athlete relationship, can have beneficial impacts outside the sporting domain, enhancing perceptions of self-competence and overall worth. The risk of impersonal coach-athlete relationships for those who “won’t make it”, as referenced above, is that these youth athletes, deselected from the talent pathway, may experience impaired perceptions of personal growth and development.

The participants’ descriptions of an “impersonal” talent development experience may relate closely to the motives of the sporting organisation and their stakeholders. More specifically, participants identified a narrow focus on them as a sports person and a large emphasis placed on their performance on the field of play as described below:

Obviously, the club are there to make you a professional rugby player. You do not go there to make friends. You do make friends, but you are there because you are good enough, they put time into you because they think you are good enough and they want

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to make you better at rugby. They would not be that interested in you as a person, I would not have thought. I can kind of see why they do not get personable. It is a business, I guess. [Participant 1]

The impact of this approach, and its influence on identity formation, was felt by the participants in their transitions post deselection:

Providing opportunities and sharing experiences outside of the club would have been so beneficial for me and the other players. I went on to play at national club level, but the academy didn’t help with any of that. I know a lot of players who had the same phone call as me, stopped playing rugby and haven’t picked up a ball since. We got a lot from being incredibly committed rugby players and suddenly there wasn’t a second option. I can’t see how that is fair. [Participant 7]

The ability of pathway stakeholders to facilitate reflection on the added value of being there or thereabouts on a talent pathway for deselected youth athletes may be critical to their success in life after youth sport. In addition, participants felt that the coaching staff failed to respond to the stressors that involvement in a talent pathway placed on the youth athlete. Most notably, participants acknowledged that these stressors may have contributed to the drop out from sport once deselected from the talent pathway, for example Participant 7 stated:

At the club there was pressure from coaches. I did not feel like it was intentional, and I did not mind it, the mentality that is. It was like a make or break situation. I do not think they appreciated the mental and physical demands on young guys in the academy programme. As I said before, there were lots of players who stopped playing rugby when they heard they were being released.

Evidence has suggested that talented youth athletes that experience premature termination in sports participation may be at greater risk of physical and mental wellbeing issues (Brown &

Potrac, 2009; Crane & Temple, 2014). This increased risk is concerning given the narrative reported above and collectively highlights the responsibility that talent development stakeholders have in ensuring positive outcomes for *all* youth athletes engaged in formalized and selective talent pathway. Such findings corroborate with the work of a range authors in the field of talent development who have highlighted the prevalence of performance outcomes within youth sports programmes such as a “win at all costs” mentality and rigid and inflexible development pathways (Collins & MacNamara, 2012; Rothwell, Stone, David, & Wright, 2017). The evidence in this study suggests constructs of the talent development environment can create experiences and a climate that both enable and challenge the development of the youth athlete through the talent pathway. Talent pathway stakeholder’s must be cognizant of the implications of the talent development environment on the inter and intrapersonal development of those that are deselected prior to signing professional terms, as when positioned correctly, these constructs can support the development of transferable skills through and beyond sport.

4.3.2. Psychobehavioural Skills for Future Success

All participants highlighted the positive contribution that the development of a range of psychobehavioural skills played on their success post talent pathway. This finding is consistent with previous literature exploring the role of learning strategies to support the development process (Cropley, Westwell, & Gabriel, 2017; Jarvin, 2017). Within this study, seven participants identified their determination to be successful as an important quality that fostered and supported future achievement. For example, Participant 6 described how this determination was nurtured during this pathway experience:

I think I like proving people wrong. For example, when I got dropped from the academy programme the first time around as a batsman, I remember thinking, right let’s become

a bowler and get back into the programme. It was the same for my GCSEs (To note, GCSE refers to the General Certificate of Secondary Education which is an academic qualification in a particular subject taken in Great Britain). People said that I should not have done certain A levels as well and I was not smart enough because of my GCSE grades. I kind of needed that to prove them wrong, it made me work harder to show them and myself what I could achieve.

This approach was supported by the participant’s willingness to make sacrifices and a confidence “to back themselves”. These psychobehavioural skills align well to the constructs of PYD, defined as the “...development of personal skills or assets, including cognitive, social, emotional, and intellectual qualities necessary for youth to become successfully functioning members of society” (Weiss & Wiese-Bjornstal, 2009, p. 1). Further detail and conceptual clarity on PYD and the life skills associated to PYD can be found in Chapter 2. Expanding further, this study found that nine of the participants referenced the development of personal assets such as: time management, effective communication, social awareness, and goal setting. The participants described the systematic development of behavioural and social skills that were reinforced through early talent pathway experiences and deployed outside of the sporting domain. This approach presents a new insight into the added value of “being there or thereabouts” in a formalized and selective sports programme.

As referenced previously, the value of psychobehavioural skill development in sport is well understood. Literature has highlighted the importance of this skill development process in optimising individual development capacity via practice, learning, and overcoming adversity in sporting competitions (Collins et al., 2016; MacNamara et al., 2010b; Orlick, 1996). However, the context of this study provides encouraging insights and potential reassurances that the process of talent development in youth through sport may also provide transferable and

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highly valuable personal assets that can be deployed in alternative domains post deselection. For example, Participant 1 stated:

The goal setting process was useful. I didn’t write anything down, but I knew if I was going to start for the first team I had to be at the right physical level and continue to improve my skills. On the academic side, now being injured, my aim is to push for a first. I know I need to spend an hour in the library, crack on in revision periods and put the work in so I know what I am doing and give myself a chance to get good grades. I think the academy experience opened my eyes up to this area, the stuff like time management and taking ownership, doing stuff for yourself and setting goals.

Supporting this, Participant 8 stated:

Awareness of others was a really big thing for me. I try to make good impressions on people, and it becomes easier to read other people. You can figure people out quite quickly when you have been involved in so many teams through a rugby academy programme. It’s actually a really great trait for me. I think it will help me in business. It is going to help me get an idea of how I can be a good team player and take my time to make sure I make a good impression.

As referenced in the quotes above, the common foundation of early experiences and subsequently learnt psychobehavioural skills may empower youth to achieve across a wider continuum of outcomes. More specifically, the development of psychobehavioural skills through the talent pathway can contribute to success post deselection from youth sport and is transferable to domains such as academia and business. This finding is supported by the work of Taylor and Collins (2019) who identified a paucity of psychological resource and challenge as notable factors contributing towards the derailment of talented youth athletes. The findings in this study would suggest that the systematic and timely promotion of psychological

challenge and support can enhance the psychobehavioural skills of those youth athletes that are there or thereabouts on a talent pathway. Moreover, these findings suggest that the development of such skills are transferable and beneficial for youth athletes post deselection from the talent pathway. Critical to this transfer may be a supportive network of stakeholders as identified below:

There were lots of great coaches that I enjoyed working with and my parents were very supportive. However, I would say one of the other players, he is a good mate and his parents did a lot of the driving and helping out like that. They knew all the coaches really well, so they would help me if I was struggling and they offered some great advice on how to communicate best with the coaches. In terms of coaches, it was strangely the forwards coach who I felt connected with me. He gave honest feedback, set me extra tasks for my skills and would tell me to get my head up if I was struggling. He kept me motivated and was really genuine. Being part of the academy programme has made me realise that every bit of work that you do can contribute to your improvement.

[Participant 5]

Participants in this study recognized that supportive others who challenged and supported them in the development of psychobehavioural skills provided opportunities for them to thrive at that time *and* in life post deselection.

4.3.3. Personal Responsibility for Future Development

All participants referenced the importance of taking personal responsibility for future development as an attitude acquired from their pathway experiences. Participants were able to provide examples of how the work ethic they developed in the pathway set them aside from their peers in future performance domains:

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The other one is self-motivation. I think I have a real drive and desire. I am prepared to get out of bed and do the hard work. At university there is no consequence for missing training. We have a big training squad, but I still want to improve and play the best I can. The guys from academy backgrounds are always on time, always push to get better and adapt quickly to the demands expected of them. [Participant 9]

It is about making the most of the opportunity. There are lots of guys in the programme at the moment who are more talented than me, but they do not turn up to training or go to the gym. They are so lazy. They have not had the programme or experiences behind them, learning from mistakes and lessons and using that to get better. [Participant 3]

Such findings relate with the work of MacNamara, Button and Collins (2010a) who identified the importance of a multiplicative understanding of development. In this context, participants were able to recognize character strengths gained from prior developmental experiences, such as their ability to invest in their personal development and contextualize how these strengths supported achievement in their current domain. Participants were able to reference their formative pathway experiences as positively enhancing such characteristics, giving credence to talent pathways as rich and positive learning environments for all youth athletes. Recognition of such competence and confidence by the participants in this study aligns well to components of Lerner’s 5C’s of PYD (Lerner, Almerigi, Theokas, & Lerner, 2005). The 5Cs model of PYD has conceptual overlap across social, academic, vocational, and sporting domains. In this light, the ability of the participant’s pathway experience to enhance positive self-worth (confidence) and self-image (competence) post deselection from a talent pathway and in an alternative domain, may be a critical and profound finding of this study highlighting the transferable nature of PYD to other domains.

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In addition to the character strengths, nine participants recognized the development of an intrinsic motivation to succeed via their pathway experiences and in life beyond youth sport:

For me it came down to how much I wanted it. I wanted to improve, I wanted to play as well as I could. It was not about doing things in half measures. At the end of the day, it was down to you and down to how much you wanted it. It was amazing to represent the club and play for the badge, but personally it meant a lot for me to show what I could do at that level. Ultimately, I did not get offered a contract, but nobody can take those memories away from me and I learnt so much along the way. That desire to improve and perform to the best of my ability is still with me now. [Participant 8]

This individual participant’s data aligns well to the macro theory of self-determination (Deci and Ryan, 2000). More specifically, participants referenced the development of autonomous motivation, in which participants developed the desire to achieve personal goals and freedom of choice to define what success looks like. This is an important finding since previous research has highlighted an individual’s readiness to perform a given behaviour is closely associated to their level of autonomous motivation (Alvarez, Balaguer, & Castillo, 2012; Keshtidar & Behzadnia 2017; Sarrazin, Vallerand, Gulliet, Pelletier, & Cury, 2002). The development of autonomous motivation shows how facilitative constructs of development environments, such as the ones in this study, and the development of psychobehavioural skills, may support young people to believe and achieve beyond a talent pathway in sport. In this context, talent pathway stakeholders may be empowered to recognize the pathway experience as a holistic and positively enabling development environment that can support personal development for and beyond the domain of sport.

In line with this, all participants acknowledged the critical role that significant others played and continue to play in their development. Participants referenced a variety of

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individuals and approaches that allowed this support to contribute to increasing opportunities to fulfil their potential through and beyond sport:

One of my friends helped me loads and I learnt a lot from him. I felt like he knew me better than I did, which is very strange. He would help clarify my own thoughts, would be a good listener and sometimes help frame stuff for me. He got what I said because he had been through a similar process. [Participant 6]

He (assistant coach) was constantly talking to me, asking me what I did well, why I did it, what I could do better. You get a deeper thought process about it when you’re playing and that helps your game. It helps you make better decisions. He seemed genuinely interested in player’s development, rather than just winning. It is why I related to him well. [Participant 4]

Importantly and as referenced here, participants acknowledged how significant others who believed in them (n=5) and who helped them (n=9) supported their development during and after their pathway experiences. Such findings relate well to previous literature on the benefits of parental inputs and behaviours matching their child’s motives and the importance of shared goals to synchronize supportive behaviour (Elliot & Drummond, 2017; Strandbu, Stefansen, Smette, & Sandvik, 2017). This concept is highlighted below through this study:

Keeping the high standards and high expectations was tough, but I think it was good for me. My parents expected me to manage my school work and rugby to the highest level possible. That was a given. That was good for me. Now I know I can achieve things and set expectations of myself where I can be successful. If people doubt me or question my ability, I feel like I can stick to my standards and expectations and deliver something which is good. I enjoyed it, as well, when the coaches at the academy and England

pushed me to get better. I knew that they wouldn’t do that if they didn’t care and didn’t think I was able. [Participant 10]

Advancing these concepts further, the findings from this study highlight that supportive and adaptive behaviours from a diverse network of friends, family and coaches may empower youth to seek to fulfil their potential by helping to frame reflective practice and refine opportunities to enhance learning experiences. This finding is akin to other researchers who have found a mixed methodology of context and interactions to provide a more rounded developmental approach, contributing to broader psychobehavioural enrichment (Hafen, Allen, Mikami, & Gregory, 2012; Jaap, 2011; Jang, Kim & Reeve, 2012; Reeve, 2012). This is critical in the context of talent development given the majority of youth athletes will fail to make the transition to senior professional sport. Thus, the acquisition of psychobehavioural skills and the motivation to take personal responsibility for development in life beyond the pathway seem critical markers of success for all youth athletes at any stage or age of the talent pathway.

4.4. Discussion

Deselection from development pathways is an inevitability for all but the most talented athletes. Although the participants in this study were, at least at that moment in their career, disappointed about deselection, they all were able to reflect on how their experiences on the talent pathway provided them with a rich learning experience that benefited them beyond youth sport. The participants noted how their early experiences in a formalized talent pathway enabled them to develop a toolbox of psychobehavioural skills that supported their transitions to new environments following deselection. On face value, talent pathways may appear to be specialised environments focused on producing the next star in that particular sport. On further inspection, and as evidenced in these findings, talent pathways that focus on the deliberate preparation of youth athletes can concurrently support the development of the next superstar

and the development of the transferable skills that enable the majority of athletes to achieve elsewhere at a level commensurate with their ability, interest, and/or motivation. Indeed, the participants in this study describe how formatively sound experiences of talent development pathways prepared them for life beyond that sport. More specifically, participants recognised the added value of professional expectations placed upon them for achievement inside and outside the sporting domain. Exposure to, and experience of, professional sport training facilities and systems of practice were seen to be inspirational and insightful, providing a head start for the participants to transition into an alternative performance domain and therefore, provided opportunities to “be more and do more” beyond sport.

The participants in this study were sensitive to the impersonal, elitist approach employed by *some* coaches within the talent pathway. In this sense, participants reported a lack of care and a detachment from some of their talent pathway coaches and acknowledged that certain individuals (i.e., youth athletes deemed more likely to ‘make it’ to professional sport) were given preferential treatment based on their likelihood of achieving elite status in the sport. This impersonal and elitist approach was reflected in participants describing maladaptive coach-athlete relationships, with a focus on extrinsic motivational factors. Such findings highlight the need for talent pathways to be capable of accommodating multiple worlds of participation (Collins et al., 2012) in which the teaching and learning of skills can support the development of a range of transferable psychobehavioural skills for all youth athletes. The accommodation of multiple worlds of participation on a talent pathway (i.e., those most likely to ‘make it’, those most unlikely to ‘make it’, and those somewhere in the middle) may enable all talent pathway athletes to optimise their development irrespective of the selection decision pre, at and post the termination of the talent pathway. Such capability may be particularly important to recognise and pay tribute to in and around the process of deselection from talent pathways. For example, previous research has highlighted the potential of deselected youth

athletes to be susceptible to experiencing psychological distress that may reach clinical levels (Blakelock, Chen & Prescott, 2016). The development of a range of psychobehavioural skills and attitudes, such as determination to be successful, confidence to back oneself and social awareness was referenced as enabling participants to believe in themselves and achieve success in performance domains such as academia and business. However, and as referenced in Chapter 2.4.1, the process of deselection may allow the coach to display both ‘hard’ and ‘soft’ interpersonal skills encapsulated in a ‘tough love’ approach. This approach has been reported as advantageous for deselected athletes in supporting their navigation of challenging experiences in sport by enhancing their reflective ability. As such, the deselection process should be a time whereby talent pathway practitioners facilitate an awareness of potential intra- and interpersonal skills developed by the youth athlete and the potential for these skills to be utilised in alterative domains. In this light, participants identified how the talent pathway encouraged them to take personal responsibility for their future development by recognising the presence of, but not limited to, intrinsic motivation and a network of significant others to facilitate success beyond sport. Equally as important may be the lag time between deselection and the ability of youth athletes to make sense of their pathway experiences. Evidence from this study suggests the ability to engage in reflection, supported by the cultural resources available, helped the participants to make sense of their experiences and find positive meaning from the negativity of deselection.

Taken globally, these finding are consistent with the success markers associated with PYD. For example, research in this area has referenced the impact of meaningful opportunity interventions and the empowerment of youth to be accountable for their own development (Eichas, Montgomery, Meca, & Kurtines, 2017). Eichas and colleagues found PYD interventions to have cascades and ‘spill over’ effects on several different but related inter and intrapersonal qualities in youth. Whilst the challenging and contingent relationship between

sport and youth development has been well researched (Coakley, 2011; Holt, Tink, Mandingo, & Fox, 2008; Weiss, 2008, Weiss & Weise-Bjornstal, 2009), the findings of this study highlight the potential positive and transferable developmental outcomes for youth athletes previously engaged in formalized and selective sport development pathways. Despite the participants of this study being deselected prior to signing professional terms, they describe psychobehavioural skills and effective performance strategies akin to those reported by elite athletes (Burns, Weissensteiner, & Cohen, 2019; Collins et al., 2016). Therefore, the findings of this study can be seen to support the connotation that the intentional and skilfully developed early experiences of youth athletes within a talent pathway can act as a rich development opportunity to acquire and deploy a range of psychobehavioural skills both in and beyond sport. This finding goes further to support a holistic *and deliberate* developmental approach in which talent pathways in sport should have the potential to support multiple worlds of participation and multiple outcomes of success within the same development programme. In this context, talent development stakeholders should recognise the need for the deliberate preparation of skills, abilities and competencies delivered through the vehicle of sport for youth athletes at every ability level.

The findings of this study notwithstanding, there are limitations that should be brought to the reader’s attention. Given the retrospective nature of enquiry, there is a risk of recall bias. Given that participants were on average 2.5 years post deselection from a talent pathway, recall bias and thus information bias may be a threat to internal validity and credibility. However, while participant’s views may have some degree of error associated to them, the experiences, and skills they attained during their talent pathway journey were identified as positively enabling their success in an alternative domain post deselection. Indeed, it may be that the delayed time period post deselection from the talent pathway was required to allow the participants to truly reflect on the benefits of the pathway despite not achieving professional

sport. It is important to reference the diversity within the group of participants. Whilst three participants spent eight to nine years in a talent pathway, three others spent only two-three years in a talent pathway. Future research should unpack the influence of the timing and duration of youth athlete’s enrolment on talent pathways and the influence of this on their journey through and beyond the pathway. In addition, the findings reflect the experiences of participants through talent pathways in two sports: rugby and cricket. It may be that sports with more or less intensive talent pathways generate environmental constructs and intra and interpersonal development opportunities that are more or less impactful on the future success of those deselected prior to signing professional terms. Future research in this area may therefore explore the experience of youth athletes across a broader range of sports programmes. Exploring how talent pathway coaches manipulate the development environment and facilitate reflection on lived experiences with youth athletes may go some way to capturing the in-action learning associated to personal development for future success prior to deselection. Such research could expand on the ‘tough love’ coaching approach proposed by Taylor et al. (2022) by exploring the mechanisms underpinning ‘challenging coaching’ on the talent pathway. In this light, the longitudinal investigation of the lived experiences of youth athletes in a talent pathway, the associated challenges, and the dynamics of multiple developmental experiences on the talent pathway would assist in providing more valid and reliable profile of facilitators of future success post deselection. Finally, participants were recruited for the study via personal networks. Knowledge of the participants and the participants’ knowledge of the interviewer may have resulted in participants refraining from disclosing certain topics or issues.

The results of this study may help guide a deliberate preparation curriculum for practitioners in the field of talent development to add value to youth athletes who are “there or thereabouts” in formalized and selective talent pathways. The professionalisation of talent pathways is unlikely to change in the near future and the race to produce the next sporting

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superstar is likely to intensify. Talent pathway stakeholders at all levels will soon be under pressure to rationalise and evidence a more holistic and inclusive developmental approach (Mathorne, Henriksen & Stambulova, 2020). The evidence in this study sheds new light on the added value of talent pathways in sport as rich developmental learning environments that can support and enhance success beyond professional sport via spill over effects into alternative domains. In doing so, this study has the potential to provide a catalyst for talent pathways to ensure the delivery of a rich learning experience for *all* young athletes is optimised and the positive and developmental cascades of learning for individuals entering any performance domain are recognised. As such, it may be proposed that the best foundation for tangible, lifelong development within and through talent pathways should focus on optimising the potential influence of developmental experiences, drawn from the environment, to support personal motivation and psychobehavioural skills for every individual at any stage of participation in a talent pathway.

Chapter 5: Coaching on the Talent Pathway: Understanding the Influence of Developmental Experiences on Coaching Philosophy

5.1. Introduction

Chapter 2 explored the critical role of high-quality coaching practice in supporting young athletes to fulfil their potential through sport with reference to key literature in this area (i.e., Jowett, 2008; Felton & Jowett, 2013; Jowett & Shanmugan, 2016). In addition, the large financial investment in talent pathways over the past decade (e.g., Elite Player Performance Plan, 2019; The Talent Plan for England, 2018) has increased the importance of understanding the philosophical positioning and developmental experiences of talent pathway coaches. Of course, it is important to consider how coaches attain this understanding and experience through their own developmental journey and subsequently translate and apply this knowledge into their coaching practice. The integrative definitions of coaching provided by Côté and Gilbert (2009) goes some way to open the door to consider how talent pathway coaches, with prior talent pathway experience as a youth athlete, may facilitate a richer development and learning experience for current youth athletes. In addition, experiential learning (EL), defined as “...the process whereby knowledge is created through transformation of experience...” (Kolb, 1984, p. 1) suggests that prior experience may provide declarative and procedural knowledge that aids the coach in supporting the development of the youth athlete. Kolb and Kolb (2005) suggest that learner development through EL can enable the development of affective, behavioural, and perceptual complexity through guided experiences. Indeed, literature exploring coach education has highlighted the importance of informal and EL experiences on coach development (e.g., Cushion, Nelson, Armour, Lyle, Jones, Sandford, & O’Callaghan, 2010; Gilbert & Trudel, 2001), with active and critical reflection on coaching actions at the heart of EL (Trudel, Culver, & Werthner, 2013; Stodter 2014). Indeed, there is evidence that demonstrates the transferability of skills learned in one domain (e.g., participation

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in a talent pathway) to another (e.g., coaching in a talent pathway: Blackett, Evans & Piggott, 2018). As suggested in Chapter 1, the successful conversion of youth athletes to successful senior athletes is relatively small. However, it may be that the skills athletes develop because of their youth sport involvement may transfer to another domain post de-selection, such as sports coaching. Critical to such transfer may be the coach's ability to use their prior experiences to facilitate active and critical reflection on the meaning and purpose of their coaching practice.

The ability of the pathway coach to adapt and appropriately support the developmental needs of the young athlete may be enhanced by the transfer of learning from past athletic experiences in a pathway. Calais (2006) summarises this concept eloquently as he states, "...learning from history is transfer of learning par excellence" (p.6). More specifically, transfer of learning has been proposed to differ in content, context, and complexity, impacting a range of cognitive processes (Calais, 2006; Haskell, 2001). Authors have gone further to suggest that the stronger the parallels and connections between previous, current, and future learning situations, the greater the opportunity for learning to occur (Dowson, 2019; Samra-Fredericks, 2013). In addition, Boud and Walker (1990) proposed that the personal foundations of the learning experience, the reflective processes and time to learn from the experience are critical for optimising learning transfer. As such, understanding how coaches transfer learning from one experience, (e.g., participation in a talent pathway) to another (e.g., coaching in a talent pathway) may provide important insights into the coaching philosophies of this cohort of coaches. Importantly, the findings of Chapter 4 highlights the potential for experiences on the talent pathway as a youth athlete to influence life post the talent pathway, despite deselection prior to professional sport. However, there is a paucity of research exploring the influence of developmental experiences on the talent pathway for deselected youth athletes on specific domains of practice. Given the potential for talent pathway coaches to influence the

developmental experiences of talent pathway athletes as identified in Chapter 2, an investigation into the influence of the talent pathway on the coaching philosophies of these ex-youth athlete may provide a specific insight into the influence of the talent pathway on life post deselection. For reference, an overview of philosophy in the context of coaching was provided in Chapter 2.4. In this context, there has been a call for research attention and practical insights on the complexities inherent in coaching youth athletes (e.g., Rocchi & Couture, 2017). Given that most young athletes will not succeed as high performing senior athletes (Gullich, 2014), exploring the transferable experiences, challenges and learning opportunities of this demographic may help optimise the positive experience for *all* youth athletes engaged in talent development. Therefore, it seems important to explore the coaching philosophies of ex-talent pathway athletes who subsequently transferred to youth sport coaching roles in talent pathways to explore the extent to which they attributed meaning and purpose of their coaching to their pathway experience. The purpose of this study was to explore the coaching philosophies of ex-talent pathway athletes who subsequently transferred to youth sport coaching roles in talent pathways to examine the extent to which they attributed the meaning and purpose of their coaching to their pathway experience.

5.2. Method

5.2.1. Philosophical Positioning

The ontological basis of this study is grounded in talent development. This study therefore embraces the experiences, realities, and reflections of a variety of ex-youth athletes, previously engaged in formalised and selective talent development pathways in sport, now coaching back in a talent pathway. Based on this approach, a complimentary epistemological stance was employed to support the collection of subjective evidence orientated around the lived experiences of those ex-youth athletes who transitioned through the pathway and are now

coaching in a talent pathway. This approach is embedded within a social constructivism theory. This theory allowed the researcher to deliver broad and general questioning and the participants scope to share potentially complex viewpoints (Palincsar, 1998). This philosophical positioning allowed the participants to respond with a breadth and depth of narrative that is reflective of how their journey through a talent pathway has shaped their subsequent coaching practice. These philosophical perspectives provided suitable opportunity to explore how the participants interact and engage with a complex, multidimensional and non-linear process such as talent development (Abbott & Collins, 2002; Abbott, Button, Pepping, & Collins 2005; Collins & MacNamara, 2012).

5.2.2. Participants

Nine participants were purposefully sampled based on their prior involvement (pre-18 years of age) in a formalised and selective talent pathway and their current involvement in coaching in a formalised and selective talent pathway. Participants were recruited based on their youth sport experience in both individual and team sports, with participants coaching in a range of sports, as identified in Table 1. All participants had been deselected from their associated pathway prior to signing a professional playing contract. This sampling methodology aligns to the aims of purposeful sampling (Palinkas, Horwitz, Green, Wisdom, Duan, & Hoagwood, 2015); participants were identified based on their specific pathway journey as a youth athlete and coach, notably their failure to reach senior professional status and future coaching role. Participants were male (n=8) and female (n=1) aged between 24 and 37 years (M age = 28.3 years, SD = 3.7 years) and of White British origin. Demographic information of the participants can be seen in table 5.1. Years of engagement in a formalised and selective talent pathway as a youth athlete ranged from 6 to 11 years (M engagement = 8.4 years, SD = 1.8 years). Years since deselection as a youth athlete from a pathway ranged from 6 to 14 years (M years since deselection = 8.9 years, SD = 2.5 years). Years of coaching in a

formalised and selective talent pathway ranged from 3 to 12 years (M years coaching = 4.8 years, SD = 2.8 years).

Table 5.1 Participant Profiles

Age Range	Associated Sport	Age at Selection to Talent Pathway as an Athlete	Age at Deselection from Talent Pathway as an Athlete	Years in a Talent Pathway as an Athlete	Years Post Deselection from Talent Pathway	Years Coaching in a Talent Pathway
24-37	Golf	12	19	8	8	3
24-37	Cricket	10	20	11	6	3
24-37	Tennis	12	18	7	8	3
24-37	Netball	12	19	8	10	4
24-37	Tennis	12	19	8	9	5
24-37	Athletics	14	23	10	14	12
24-37	Swimming	15	20	6	8	4
24-37	Swimming	13	19	7	11	5
24-37	Football	8	18	11	6	4

5.2.3. Procedures

Following research ethics board approval and after receiving individual consent (see appendix A.5), participants engaged in an interview process to develop an understanding of the meaning and purpose of their coaching practice, influenced through their experiences as a youth athlete in a talent pathway. The interview progressed to explore how these experiences had influenced their current coaching practice. Each participant engaged in one interview, with an average length of 43 minutes, ranging from 39 to 49 minutes in length. The collection of information regarding the participant's retrospective experiences was achieved via one to one, semi-structured interviews. An example of the key questions that were utilised in the study were:

1. Tell me about your time as an athlete in the talent pathway?

2. Tell me about your time as a coach in the talent pathway?
3. What experiences did you have in the talent pathway as an athlete have helped you as a coach in the talent pathway?
4. What skills did you develop in the talent pathway as an athlete that have helped you as a coach in the talent pathway?

5.2.4. Data Analysis

The method used to analyse the content of the interviews was thematic analysis (TA) following the same procedures outlined in Chapter 4. This approach was appropriate for interpreting the participant's personal perceptions and accounts of their time in a talent development programme both as an athlete and coach. In addition, it allowed the participants to interpret how these experiences may have acted as a facilitator to influence the meaning and purpose of their coaching practice. Interview transcripts were analysed predominately via an inductive approach to TA. Nvivo 12 Qualitative Data Analysis Software was utilised to manage the data analysis process. This is a bottom-up approach, focused on deriving codes and themes from what is in the data (Braun & Clarke, 2012) and, reflecting the aim of the study, this allowed the researcher to "give voice" to the experiences and meaning of the participant's responses.

Braun and Clarke's six phase approach to TA (2006) was utilised during the data analysis process as previously described in Chapter 3. Cognisant of the need to ensure trustworthiness of the data analysis process, my supervisor reviewed the annotated and coded transcript. When a discrepancy in interpretation was found, we both referred to the original transcript, discussed the notes and themes and agreed on a consensus position. This occurred in two out of the nine transcripts. This system was applied to all transcripts, expanding to integrate new concepts as they appeared, thus allowing referral amongst all transcripts (Smith

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& Osborn, 2003). The same member checking (Smith & McGannon, 2018) processes as described in Chapter 3 were employed in this chapter. Participants were sent their final transcript via email and asked to reply if they felt the transcript did not represent their prior experiences as a youth athlete and current experience as a coach on a talent pathway. The member checking process aimed to enhance the robustness and depth of findings. In total, two participants responded to provide additional detail around their experiences as a youth athlete on a talent pathway. Specifically, these participants provided more detail on examples of developing interpersonal skills with their talent pathway athletes and how their previous coaches provide inspiration for their current coaching practice.

5.3. Results

The purpose of this study was to explore the coaching philosophies of ex-talent pathway athletes and provide detail on how the meaning and purpose of their talent pathway coaching was influenced by their athlete pathway experience. Thematic analysis of the data highlighted three higher order themes (a developmental coaching philosophy, applied coaching practice and pathway experience supporting coaching success), 11 lower order themes and 33 raw data themes. The thematic analysis can be seen in table 5.2.

Table 5.2 Thematic Analysis

Raw Data Themes	Lower Order Themes	Higher Order Themes
A dynamic and complex process Experiential learning through sport	A Process of Supporting Personal Growth (77.7%)	
Verbal and nonverbal communication skills Relationships building Well-functioning member of society	The development of interpersonal skills (77.7%)	A Developmental Coaching Philosophy (100%)
Preparing independent learners Promoting perseverance Taking responsibility for their own development Skills to deal with the highs and lows	The development of intrapersonal skills (44.4%)	
Embedding my coaching values Clarity and consistency in approach A focus on the process	Supporting a nonlinear development pathway (33.3%)	
Opportunities for all Coaching within the context of development	Optimising each individual journey (44.4%)	
A coach beyond coaching Developing great people Leading by example Supportive in and beyond sport	Making a real difference (66.6%)	Applied Coaching Practice (100%)
Creating opportunities that I didn't have Preparing youth for their next transition Driving future engagement in sport	Holistic perspective on development (77.7%)	
Immediate respect from the athlete Going on the journey together Empathy Understanding the sacrifices required	Building rapport (88.8%)	
Dedication to personal development Filling in the gaps of my pathway experience The scaffolding of family	The past as springboard for the future (100%)	Pathway Experience Supporting Coaching Success (100%)
Influencing positive behaviours Learning from my mistakes Relatability	Act as a role model (88.8%)	
Forming an understanding of good coaching practice Normalising the role of a pathway coach	Inspired by previous pathway coaches (88.8%)	

5.3.1. A Developmental Coaching Philosophy

Participants (n=7) referenced how their youth pathway experience allowed them to identify *a process of supporting personal growth* as an important construct of their coaching philosophy. More specifically, participants recognised that the youth athletes that they coached were engaged in a complex and dynamic development process. Participants were able to draw on their previous pathway experience as an athlete to appreciate the challenges and stresses associated with this process in the context of personal development:

What we are asking these young school kids to do is get your grades and be a professional before becoming a professional. The odds are stacked against them and they are pretty much guaranteed to make a mess of it, unless they have an amazing support system that understands those demands, which is rare. I think my experiences as a golfer in a talent pathway, enables me to be more considered and reflective. The chances of making it pro are slim, we need to increase the chances of graduating our programme as a better human being. I try and play my role in doing that. [Participant 1]

These findings suggest that previous pathway experiences have been utilised to enhance declarative knowledge, orientate the coach's philosophical positioning towards development processes to augment coaching outcomes for the best of the individual. In doing so, it provides an insight into how the sequencing of beliefs and know how drawn from a youth pathway career have been adopted into the participants coaching approach within a talent pathway.

Whilst participants were able to identify the challenging context in which they are coaching, participants clearly articulated the importance of personal skill development within their philosophies. More specifically, seven participants referenced *the development of interpersonal skills* as a construct of their developmental philosophy. One element of interpersonal skills that was emphasised was the development of verbal and non-verbal

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communication skills. Participant 9 acknowledged that they believed such skills were vital for success outside of sport:

Those relationships across different domain looking back now were really important for me. My parents are really grateful of the academy coaches, the academy manager for developing those skills in me. I am confident that has given me a head start when I transitioned out of the academy and back into coach the younger year groups. It's not just in football, my lecturing working has developed quickly as well. That time in the academy gave me the social capability to, hopefully, be successful in that area as well.

As identified in this extract, such personal skills are often set in the context of positive relationships. Indeed, participants identified relationship building as important to interpersonal skill development:

Some of the work I have done here is as good as any tennis coaching in helping kids in other areas, such as socially, how to interact and communicate, build relationships or to be more organised. I guess part of that is understanding themselves and their game and giving them the ability to reflect and take things on different paths. That is one thing I try and do now based on when I was playing at their age. [Participant 3]

The participants described how they focused on enhancing interpersonal qualities, such as communication skills and relationships building, to develop young athletes as well-functioning members of society; in short, PYD (Weiss and Wiese-Bjornstal, 2009). Considering this, it is evident that the participant's experiences as youth athletes in a talent pathway had influenced their personal beliefs about knowledge and skill development through sport. This was a common feature of all participants in that they were able to reflect on the impact their talent pathway experiences had on the development of their coaching.

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In addition to the development of skills to optimise interpersonal qualities, participants identified *the development of intrapersonal skills* to enhance the preparedness of their pathway athletes for experiences in and beyond sport. For example, Participant 4 identified intrapersonal development through sport, with an emphasis on preparing independent learners:

It is in me from my junior playing days and now it's in our team culture. The girls have to take responsibility for themselves; sort their own food out, get here on time, and pack their own kit bag, prepare their own review documents, consider what more they can contribute to the team. For me, it is always about putting that effort in. It's about the attitude you have, not necessarily your technical ability. They know what to expect of me, so they know where the line is and that seems to work well.

Furthermore, Participant 2 was able to reflect on their youth pathway career and acknowledge how important it is for them to strive to challenge their young athletes to be persistent in the face of testing scenarios within their sport:

I think about the ups and downs of my cricket career as a youngster. It taught me to stick in there, to keep going and be ambitious when I was out of form or playing against better players. I try to create those type of scenarios if the game or training is not offering it to the players. It's about the willingness to stick something out and give it a go. I speak with these youngsters about the highs and lows and the importance of finding a way, carrying on.

The participants own experiences as youth athletes was palpable in framing success for their athletes in their coaching role, success that is recognised as achievement both inside and outside of sport and orientated around personal growth and skill development.

This holistic understanding of success on the talent pathway is exemplified through the

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participants recognition of *supporting a nonlinear development pathway*. Participants identified their need to be adaptable through their coaching philosophy, using their previous talent pathway experience to support this process. Participants identified the need for clarity and consistency in their approach in order to support their youth athletes in the context of the dynamic and unpredictable nature of development. In this light, Participant 9 identified a focus on the true value of the process of holistic support and skill development:

We talk about the football being the vehicle to allow these boys to develop both on and off the pitch, but we know it takes time and we know we just need to play our part now because we hope the boys will still have another 6, 7, 8 years in the programme to learn even more about themselves as footballer and young men.

This evidence suggests the participants meaning and purpose to their talent pathway coaching is contextualised within the nonlinear nature of youth athlete development, i.e. development inside and outside of sport, intrapersonal skill development, long term focus. Participants sort to be clear, to embed, and to be consistent with their coaching philosophy within the dynamic and ever evolving context of coaching in a talent pathway.

5.3.2. Applied Coaching Practice

Grounded in their experiences as a youth athlete, it was interesting that all participants emphasised the importance of *optimising each individual journey*, with attention given to providing opportunities for all when discussing their applied coaching practices:

There are certain things I want to do to help kids more and make sure they all see progress, so not trying to fit them into a mould is really important. My time as a player has helped me as a coach in that I would be less inclined now to waste time working on aspects that aren't relevant to them. I am more conscious that when coaching, I need to be really relevant for that player and focus on the right aspects of their development,

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try and give my players the ability to be really selective and specific with what they are working on. [Participant 3]

In this context, participants identified a continual effort to facilitate personal development within their coaching practice relative to their youth athletes perceived current and future needs. Participants explicitly referenced their own youth athlete experiences in a talent pathway and how these experiences have given them perspective on what might need to be done and why particular coaching actions and decisions may be beneficial for the young athlete both inside and, critically, outside of sport. Participant 6 exemplifies this as they state:

Athletics coaches get distracted by the sport specific nature too much. The other bits are more important. Things like the young athlete's organisational skills, their accountability, their ownership of training and understanding of their sport, so I talk to our guys now about having 3 A levels plus a 1 A level in their sport. I want to give them the best education through athletics so that they have a wider and deeper net to cast around their behavioural, lifestyle processes and skills so that whether people become high performance athletes or just loving sport and enter the working world. From my experiences as a youth athlete, I think continuing to love the sport and have some skills that will benefit them moving forwards is so important.

The analogy of the youth athlete gaining a qualification in their sport, as acknowledged by Participant 6 in their reference to their youth athlete's gaining an A level, highlights the potential for sport *and the coach* to provide a rounded educational experience. The participants prior experiences as an athlete in a talent pathway seem to act as a catalyst for augmenting a more bespoke and holistic developmental experience for the youth athletes that they coach. The meaning and purpose of this applied coaching position is referenced as being founded on the participants prior talent pathway experience as a youth athlete

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The participants described youth coaching as dynamic and complex with the need to support the development of a diverse cohort of youth athletes. In this regard, participants stressed the importance of coaching within the context of development and highlighted the need to tailor their support to the individual and the context. For example, Participant 8 stated:

I would say that I was someone who is there to inspire them and to support them to be the best that they can be. That's what the best coaches I had did for me when I was training and competing. Whether that is in sport or something else, I am very conscious that I have to be there to support them in their decisions. I can use my experiences, the positive and negative ones, to help. I think the sport is a vehicle by which they cross your path but ultimately whatever they want to be successful in I am happy to help get them there.

In short, participants drew on past experiences to inform their professional judgement and decision making (PJDM; Martindale & Collins, 2005) to support holistic and positive youth development.

Such a refined and nuanced approach to coaching practice has been well referenced in the coaching literature. Authors have suggested optimal coaching behaviour should incorporate the subtle prescription of solutions relative to the challenges and stresses of the coaching context (Abraham & Collins 2011). In this study, the participants' prior experiences and knowledge development as a youth athlete supported their PJDM in *making a real difference* to their current pathway athletes. Participants identified their impact as a coach beyond coaching. For example, Participant 6 reflected on how the youth athletes they coach may interpret their role:

I think we talk a lot about life skills generally, about life decisions, about how sport impacts positively on their academic performances and why that is important for them.

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So, I think they (the athletes) would acknowledge I am a very technical coach of the jump and then talk about the other areas I aim to developed in them; organisational skills, life skills, etc, as I use the term accountability all the time. I think they would pick up on it.

This narrative encapsulates the wide-ranging demands placed on the talent pathway coach in a development context. This *holistic perspective on development* highlights how the participants' decision making, and practice wisdom has been positively influenced by their own pathway experience in sport. Indeed, the participants engagement in a formalised and selective talent pathway and deselection prior to signing professional terms seemed to provide them with a foundation for the development of coaching skills to support youth development in and through sport.

Participants acknowledged the importance of *building rapport* to aid their developmental and holistic coaching practice. In this sense, participants identified the need to be supportive of their youth athletes on and through their talent pathway journey. Participants referenced the empathy and support they aimed to provide using experiences from their own relationships with pathway coaches as a youth athlete as the foundation for future development:

There were a few people (coaches) in my junior career that I look back on and they were there for me, really helped me, they understood what I was going through and how hard it was as a junior. I guess I would want to be that person for younger players in the pathway and have those supportive relationship to help them develop further in their tennis. [Participant 3]

Given their prior experiences on a talent pathway, participants recognised the commitment needed from the youth athletes they now coach. Taken collectively, participants acknowledged the impact and value of their experiences as a youth athlete in a talent pathway on their applied

coaching practice. Most notably participants recognised the ability to connect, empathise and appreciate the sacrifices required by the youth athletes they now coach.

5.3.3. Pathway Experience Supporting Coaching Success

Participants identified how their previous pathway experience as a youth athlete has supported their subsequent coaching success. All participants stated how they used *the past as a springboard for the future*. For example, Participant 3 stated:

After having such bad playing experiences for the 3 years in tennis, it showed me I really loved the sport, I had some resilience to keep pushing forward and trying to improve. It's definitely helped me as a coach and as a person now. It makes you realise what your priorities are. It gives you the ability to bounce back from things; key in a sport like tennis. The decline in my level of tennis was negative but the overall experience, I don't think I would have changed it.

As referenced here, participants acknowledged how their formalised and selective youth sport experience provided a foundation to be dedicated to their personal development as a coach. More specifically, participants referenced how the challenges and opportunities of competing as a youth athlete have helped prepare them to be steadfast in improving their coaching skills. This finding is supported by authors who have referenced the carryover of prior playing experience in sport on the positive development of psychological and cognitive skills in the coaching domain (Grundel, Schorer, Strauss, & Baker, 2013). An example of such carryover can be seen below:

My fear now is that some academies are so narrow, just focused on cramming in the most number of hours in each week with the players. Whereas for me and my experiences in the academy as a player and coach, it has given me the ability to better understand the players, develop those social skills. For me, the variety of social

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engagement gave me such amazing value. I was travelling abroad with the club from the age of 10 and 11. I was acting as a role model to the younger players in the academy at 14 or 15. It forced me to mature so quickly and has allowed me to progress with my career post football. [Participant 9]

Indeed, participants also identified how, as a coach, they are filling the gaps of their own pathway experience. This theme further highlights how the participants' youth sport experience in a talent pathway impacted their thoughts, perceptions and beliefs as a talent pathway coach.

As an example, Participant 6 stated:

I think from a football standpoint, the lack of coaching I got probably hits me on why I think the way I think now. Just learning how to warm up properly, perform basic skills that I never had from a football perspective. Those things are important to me now. I think when I look back at my athletics, the things that held me back were that I had a poor technical model. From an early age it is something I am really keen to coach well when kids turn up to the track. It's vital.

In this study, the participants were able to recognise the methodologies and impact of the individuals who coached them as youth athletes in a talent pathway and the positive influence that these experiences have had on their current coaching practice and beliefs.

In addition to the impact of individuals who coached the participants, participants were also able to draw on a range of talent pathway experiences that enables them to *act as a role model* to the youth athletes that they now coach. One example provided was the impact of the participants experience of deselection on their current perception of deselection as a coach:

The deselection process for me was actually really positive, traumatic for sure and it wasn't nice, but the way the club and coaches handled it has played a big part in where I am today. In the future, I want to play a part in making sure every kid who goes

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through that experience gets something positive out of it. I have experienced how it has facilitated other opportunities for me. That negativity needs to be a springboard for something more positive. [Participant 9]

In addition, participants identified how the youth athletes they now coach can learn from their own mistakes as a youth athlete in a talent pathway. More specifically, Participant 5 identified how they are conscious of their youth athletes to making the most from the opportunities available in a talent pathway:

Any regrets that I have had from being 12 – 18 years old in terms of my attitude or work rate on court, I wouldn't want a player I coach to go through the same thing and potentially waste valuable minutes, knowing that they can be 10% better if they really focus. I could have been at least 10% better if I had got other parts of my game right when I was a junior.

The evidence provided here suggests that previous talent pathway experience as a youth athlete can influence the meaning and purpose of the coach in a talent pathway. Specific experiences have influenced the subsequent meaning and purpose of the participants as role models with the overall development of the youth athlete central to this modelling. The importance of such informal sources of learning have been acknowledged in the coaching literature (Seddon & Stoszkowski, 2018) and now within this study. For example, eight participants described how they have been *inspired by previous pathway coaches*. Indeed, participants referenced how their previous pathway coaches have assisted in forming an understanding of good coaching practice and contributed to normalising the role of a pathway coach. For example, Participant 9 stated:

I have been fortunate enough to spend time as a player in a programme with really great coaches. I have seen how they work and the impression they can make on young

people. The fact that he was always checking in with me, I felt like I knew where I was with him in relation to other players and maximising my potential through 16, 17 and 18. I needed that honesty to get my head around my future, it enabled me to get a perspective on where my future might lay. I really believe those experiences have helped inform my practice.

In addition, Participant 8 recognised how they took coaching skills from a variety of different coaches involved in their own talent pathway experience:

When I was a swimmer I would always think, a coach has done that really well and that has stuck with me into my coaching. One coach was always well organised, planned everything to the finest details. Another coach was just a great people person. One of those people to support you emotionally and make you feel great about yourself. I am just trying to put all the good things together.

Taken collectively, these themes highlight the significant role that talent pathway experiences have had on the participants' desire and ability to advance their own coaching practice. In particular, the participants' athletic experiences helped position their coaching practice to provide opportunities for a more fulfilling sporting experience for their youth athletes. These findings suggest talent pathway experience as a youth athlete can help form the meaning and purpose behind a specific and holistic philosophy to youth sport coaching. As such, this may support positive developmental outcomes beyond winning or reaching professional sport in the domain of talent development (e.g., a career as a talent pathway coach in sport).

5.4. Discussion

The purpose of this study was to explore the coaching philosophies of ex-talent pathway athletes and provide detail on how the meaning and purpose of their talent pathway coaching was influenced by their athlete pathway experience. Participants in this study identified how

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the skills and experiences that they acquired through their own youth sport experience in a talent pathway enabled them to focus on supporting the personal growth and development of life skills in the youth athletes that they now coach. In addition, participants identified their applied coaching practice was orientated towards optimising the experience and development of each individual youth athlete. In particular, the participants expressed their drive to develop skills “for and beyond sport” given the limited chance of “making it”. Finally, participants recognised the impact of their previous pathway experience to support their coaching success in the talent pathway through reflective practice and modelling of their current practice based on their prior experiences. Akin to the coaching process outlined by Abraham and Collins (2011), through the process of delineation, action and reasoning, the participants described how they reflected upon and learned from their experiences as a youth athlete in a talent pathway to position their coaching beliefs and practices to support developmental outcomes beyond winning and professional sport. This provides a novel insight into the philosophical positioning and developmental experience of a cohort of pathway coaches in youth sport, highlighting the direct influence of previous pathway experiences on current coaching philosophy.

With the professionalisation of talent pathways across sport, and the growing emphasis on the importance of the talent development landscape, the role of the coach and high-quality holistic coaching practice is now of critical importance for the overall development of youth athletes. Given the low probability of transitioning from a high-level junior to senior performer (Gullich, 2014), and considering the potential for sport to add real value to life skill development in youth athletes (Forneris, Camiré & Trudel, 2012), an important role of a coach in a talent pathway should be to facilitate development for those who make it *and* the majority that don’t. Participants in this study were able to reflect on how their own youth athlete experiences in a talent pathway which, despite deselection prior to signing a professional playing contract, influenced the meaning and purpose of their coaching philosophy with youth

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athletes. Such influence is representative of transfer of learning and more specifically, “near transfer” (Perkins & Salomon, 1994). For example, the importance of developing inter and intrapersonal skills in the context of a dynamic, nonlinear, and complex talent development pathway was grounded in the participants’ prior experiences of developing such skills through their own pathway journey. Authors have highlighted that transfer occurs through the unconscious mapping of present conditions to previous paradigms through deeply embedded features (Riviére, Jafferlot & Chiniara, 2019).

Critical to successful transfer, therefore, may be the relatability of the content and context in which previous experiences were acquired and current practice delivered. For example, despite the participants in this study not ‘making it’ as a professional sports person, they spent an average of 8.4 years in a talent pathway as a youth athlete and an average of 4.8 years currently coaching in a talent pathway. In this light, the theory of situated cognition (Kirsh, 2009; Roth, 2013) can help describe the participant’s reasoning of their coaching practice framed within the physical sporting environment and filtered through their perception of a youth athlete’s likelihood of reaching professional sport. The true value of the participants’ prior experiences of personal and life skill development attained through their pathway experience is tangible in this context. Participants in this study were able to utilise near transfer and situated cognition to support the development of personal beliefs and critical reflections on their coaching planning, practice, and review processes relative to optimising learning for the youth athletes which they coach. In this light, enrolment in a talent pathway should be seen as an opportunity for personal growth and hold the potential to be a positive experience for *all* talent pathway athletes, not only the minority that ‘make it’. This finding should encourage talent pathway managers and coaches, as well as youth athletes to engage in the development of transferable experiences and learning opportunities through the talent pathway for life beyond youth sport.

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As evidenced by the findings in this study, talent pathway coach's experience as a youth athlete in a talent pathway *can* provide a critical reference point with which to optimise the EC for success through and beyond sport. In doing so, the pathway coaches in this study positioned the personal development of the individual athlete at the forefront of their coaching philosophy. This approach resonates closely with a more sophisticated rather than naïve approach to coaching (Grecic & Collins, 2013). This distinctive insight into the development of the EC and coaching philosophies of the participants in this study, framed within the backdrop of the participants previous athletic experiences in a talent pathway, represents a complex, dynamic, and intricate approach to the acquisition of coaching knowledge. This concept aligns closely to epistemology in coaching which has been contextualised as how, "...coaches' deeply held beliefs about teaching and learning would exert influence upon the methods, goal setting, player-coach relationship, reviewing/assessment procedures adopted" (Grecic, MacNamara & Collins, 2013; p. 104). Seddon and Stoszkowski (2018) state that a coach's epistemology contributes substantially to the content, methodology and rationale of their coaching practice. In this study, the participants beliefs about supporting the personal development of their youth athletes may have contributed to influence their applied coaching in which bespoke, impactful and holistic practice was outlined. This approach seems to have resulted in participants placing a high price on developing a rich learning environment for their youth athletes. In doing so, the meaning and purpose of their coaching practice in a talent pathway may help generate more opportunities for their youth athletes to experience success and personal growth in and beyond the talent pathway of sport. Given the very low probability of youth athletes in talent pathways reaching senior professional status (Gullich, 2014), the evidence provided here may inform and empower talent pathway stakeholders to more holistically prepare their youth athletes for life after the pathway. In this context, the value of ex-pathway athletes being supported to transition into talent pathway coaching roles may be of real benefit to the experiences and development

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of current and future talent pathway athletes due to the meaning and purpose of their beliefs about coaching in this context. Talent pathway stakeholders, therefore, could provide the opportunity to prepare youth athletes for a career in coaching through, but not limited to, the early exposure to sport coaching courses, supporting practical sport coaching experience within and beyond a talent pathway and scaffold discussions about their lived experiences as a youth athlete and the value of talent pathways on transferable skills in and beyond sport.

Critical to the meaning and purpose of the participants' coaching practice was the termination of their own talent pathway journey due to deselection prior to signing a professional playing contract. For all participants in the study, the dream of reaching professional sport was not achieved, yet their journey was deemed rich and fulfilling due to the impact it had on their future coaching career. In short, the participants identified their youth athlete experience as transformational for their coaching; influencing their affective, behavioural, and cognitive perceptions and beliefs of appropriate coaching practice for youth athletes currently engaged in talent pathways. Research has previously categorised coach learning of this type as internal learning (Trudel et al., 2012). Research has gone further to make parallels between internal learning and 'cognitive housekeeping' (Stodter, 2014); the process of capturing, organising and reforming knowledge through reflection in order to positively influence subsequent actions.

More recently, authors have captured the nuanced and multiplicitated nature of coach learning. For example, Stodter and Cushion (2017) proposed that sports coaches utilise an active filtering process where individuals adopt, adapt or reject personal and coaching experience through reflective practice and the nature of the coaching context. Stodter and Cushion (2017) identify the critical role that the coach's biography played in impacting the meaning and purpose of their coaching practice. This is supported by previous research that has verified the importance and impact of coaches' formative experiences on the process of

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digesting contextual features of any coaching scenario (Abraham, Collins & Martindale, 2006; Leduc, Culver & Wethner, 2012). Subsequently, the impact of such formative experiences is expressed through the meaning and purpose of one's coaching practice. In this study, this is represented through the participants developmental coaching philosophy, applied coaching practice and perceptions of coaching success shaped through their formative and early experiences as a youth athlete in a talent pathway. This evidence goes some way to give credence to the impact of prior athletic experience on one's current coaching philosophy and may give weight to the role and influence of prior athletic experience on current and future coaching success.

The common theme tying together the participants' previous athletic and current coaching experiences has been the focus on personal growth and life skill development through a talent pathway in sport. As referenced previously, a coach can act in a transformational manner to positively impact the personal development of young people (Turnnidge & Coté, 2016). This study has shown the influence and impact of prior talent pathway experience as a youth athlete on the meaning and purpose of coaching practices in talent pathway coaches. Recently authors have called for a more collective approach, from national governing bodies to coaching practitioners, to work in harmony to embed, teach, and develop life skills through youth sport (Camiré & Santos, 2019) more explicitly. The evidence from this study suggests that talent pathway coach's youth sport experience in a talent pathway can be an important component in forming the meaning and purpose of their coaching practice, in which the holistic personal development of the youth athlete is deemed important. Collins and Collins (2016) relate this process to the concept of PJDM through, "...the mixing (i.e., interaction) of primary colours (i.e., the elements of basic knowledge or knowledge schemas essential to the coaching role), which creates an infinite palette of colour (i.e., broad range of coaching approaches)" (p. 21). In the context of this study, the participants prior experiences of participation in a talent

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pathway may have provided a selection of or contributed to the formation of primary colours with which to build their coaching palette. It may be proposed therefore, that it is the coach's artistic impression and expression that allows a rich and vibrant painting (the athletes development experience through sport) to be created. Such finding supports previous work that has recognised the impact of formative experiences in youth sport and their impact on future life experiences (Holt & Neely, 2011; Kendellen & Camiré, 2015).

The findings from this study go further to highlight the potential developmental subtleties of talent pathways beyond the transition to professional sport (e.g., coaching), whilst also recognising the potential positive influence of previous athletic experience on subsequent coaching practice. In this context, the ability of talent pathways to act as rich developmental environments to nurture coaches of the future becomes tangible. In addition, the ability of coach education programmes to delve deeper into the impact of prior athletic experiences on current and future coaching practice may be a credible source of learning for pathway coaches. Taken collectively, these findings highlight how talent pathways can positively impact the developmental experiences of ex-youth athletes who do not achieve the status of a professional sportsperson.

Future research may delve further to explore the nuanced approach of athletic experiences in team sports compared to individual sports. This research may explore how these differences, given the nature of coaching in each environment, may influence the developmental trajectories, meaning and purpose of deselected youth athletes, who then progress into coaching roles. Future research may also explore the possibility of gender discourse on the meaning and purpose of coaching practice (de Haan & Knoppers, 2020) derived from youth sport experiences. The subjects in this study contained only one female. Given the growing impact and development of talent pathways in women's sport, future research may be warranted to replicate this study with a female only cohort. The diversification

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of this study design could also explore the meaning and purpose of coaching in countries outside of the United Kingdom. The variation in sport development, coaching, funding and culture in different countries may impact on the transformation of ex-talent pathway athletes to talent pathway coaches and their beliefs about good coaching practice.

Of course, there are some limitations to the retrospective nature of the data in this study. It is important to note that the participants had been deselected from their talent pathway as a youth athlete for an average of 8.9 years (± 2.5 years). As such and due to recall error, selection and memory bias, the participant's views may not precisely reflect their lived youth sport experience and/or the meaning and purpose of their current coaching practice. In addition, the interview was solely focused on extracting the lived experiences of participants as youth athletes and the impact of this on their current coaching philosophy. The impact of previous coaching roles and coach education experiences on their current coaching philosophy was not explored and this should be noted as a limitation. Future research could go further to capture this information and present a more holistic representative of the impact of prior athletic and coaching experience and education on one's current coaching philosophy.

Chapter 6: Challenge is in the Eye of the Beholder: Exploring Young Athlete's Experience of Challenges on the Talent Pathway

6.1. Introduction

For over 20 years there has been a substantial focus on the design (Côté, 1999; Balyi & Hamilton, 2004; Lloyd & Oliver, 2012), and optimisation (Jayanthi & Dugas, 2017; Lloyd, Oliver, Faigenbaum, Howard, De Ste Croix, Williams, & Best, 2015; McKeown & Ball, 2013) of the talent development pathway in sport. Although some of this research is well-developed, such as talent development environments (Henriksen et al., 2010; Martindale et al., 2007), the influence of maturation (Malina, Cumming, Rogol, Coelho-e-Silva, Figueiredo, & Konarski, 2019) and psychological determinants of development (MacNamara et al., 2010a), there has been less of an emphasis on how high potential young athletes negotiate the inevitable “ups and downs” of development on the talent pathway. In part, this is due to methodological issues; retrospective and single time point data collection has dominated the evidence base (Collins et al., 2016; Howells & Fletcher, 2015; Tedeschi & Calhoun, 2004; Savage et al., 2016). However, and as identified in Chapter 2, challenging experiences appear to be an important element of the pathway with the potential to both derail and propel a young athletes’ progress (Savage, 2019; Taylor & Collins, 2021). It seems pertinent therefore, to consider how young athletes manage these experiences, *in situ*. Indeed, and presenting somewhat of a conundrum, talent pathways often provide the best performing young athletes with a comprehensive range of resources, support, and opportunities to expedite their progress and even smooth the pathway (e.g., offload the psychological stress associate to a challenging experience). Given the performance pressures, even at youth level, faced in sport, ‘smoothing out’ the experience of young athletes is understandable; youth coaches and talent pathways are often judged on short-term and junior success even if their reason d’être is the long-term development of athletes. Although there is considerable debate about the nature of the challenges that support optimal *and* long term development on the pathway (Howells & Fletcher, 2015; Rees et al., 2016;

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Savage et al., 2016) and the mechanisms that support its' role as a determinant of development (Collins & MacNamara, 2012; Collins et al., 2016), the benefits of negative emotional experience that may occur as a result of developmental 'challenge' appear to be impactful and act as prompts for reflection and learning that can guide future development (Baumeister, Masicampo, & Vohs, 2001). Capturing the self-perceived challenge experiences of young athletes via both reflection and forecasting may provide the basis for better understanding how young athletes prepare for, navigate, and develop through such experiences on the talent pathway.

Reflecting the importance of early developmental experiences as identified in Chapter 2, their impact on future development (Seery, 2011) and in the issues raised in Chapter 1, I was particularly interested in examining young athletes' self-identified impactful challenge experiences. Specifically, I was interested in the subsequent negotiation of this challenge and the young athletes' perception of the impact of this experience on their progress on the talent pathway. Therefore, the purpose of this study was to explore what young athletes experienced during their most difficult challenges and how youth athletes negotiated their most difficult challenges as they transitioned from the specialisation to the investment phase of development on the talent pathway.

6.2. Method

6.2.1. Philosophical Positioning

The design of this study was aligned with our pragmatic research philosophy as described in Chapter 3. Given the drive to ensure that useful knowledge was generated (Giacobbi et al., 2005), a qualitative methodology was adopted (Denzin & Lincoln, 2008) to explore the experiences, realities, and reflections of a purposeful sample (Palinkas et al., 2015) of young athletes currently engaged in the early years of formalised and selective talent

development pathways in sport. Selecting this purposeful sample, and the relevant applied focus, enabled us to probe the details and contexts of these participants and support our aim of exploring the experiences of young athletes as they negotiated difficult challenges in the early years of the talent pathway.

6.2.2. Participants

Eight participants were purposefully sampled based on their current enrolment in a formalised and selective talent pathway in sport. Participants were identified and recruited via personal networks in sport. All participants were transitioning from the specialisation to the investment phase of the talent pathway in either individual or team sports. The specialisation phase has been characterised by a balance between deliberate play and practice, with a reduced engagement in several sports (Côté, 1999). In addition, Côté (1999) described the investment phase to include activities involving a high amount of deliberate practice, a low amount of deliberate play and a focus on one sport. Regarding performance levels, participants had competed at either a junior international level; successful in achieving international selection criteria in swimming or golf, or professional sport academy level; successful in formalised trials and selection competitions in hockey and rugby. All participants also had competed in their sport at a lower representative level, but the interviews were specifically focused on exploring the most difficult challenges experienced in the early years on their talent pathway at a junior international or professional sport academy level; akin to transitioning between specialising and investment years (Côté, 1999). Participants were female (n=5) and male (n=3), between 15 and 17 years (M age = 15.8, SD = 0.9 years) and of white British origin. Additional demographic information can be seen in table 6.1.

Table 6.1 Participant Profiles

Chronological Age	Sport	Age at Selection onto Talent Pathway	Years on Talent Pathway
15	Swimming	15	0.5
15	Swimming	14	1.5
17	Hockey	15	2
16	Rugby	14	2
15	Swimming	14	1
16	Golf	15	1
17	Hockey	16	1
15	Swimming	15	0.5

6.2.3. Procedures

Following research ethics board approval and after receiving individual consent and consent via loco parentis, participants engaged in an interview process to develop an understanding of their lived experiences of negotiating an impactful challenge on the talent pathway in the athlete's most recent season or off season of the investment phase of their development. Each participant engaged in two semi-structured interviews separated by five months. Interviews were conducted by the first author and recorded on a dictaphone. Interviews were arranged to suit the participants and took place in a quiet location. Each interview lasted an average of 41 minutes ($SD = 5$ minutes). In the first interview, participants were asked 'what was the most difficult thing that happened so far this season?'. This question, and subsequent probing, explored each participant's interpretation of the most difficult challenge they experienced in the most recent season or off season of the investment phase of their development and, as such, the scale of the challenge was reflective of the participant's own experience. Participants were then asked to consider what was likely to happen over the next 8-12 months and their level of preparedness for this. Interview two was completed five months later utilising broadly the same structure as interview one but with a focus on the previously self-identified "most difficult" challenges and then their preparedness for future challenges.

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The five-month period between interviews was chosen to allow the participants to experience a full season or off season on their talent pathway and the opportunity to capture participants' experiences of negotiating challenges *as they happened*. An interview guide consisting of key questions, probes, and prompts (see appendix A.9) was employed (Pietkiewicz & Smith, 2014), and this format also gave scope for reordering of questions and the ability to reroute the interview based on perspectives offered by the participant.

6.2.4. Data Analysis

A thematic analysis (TA) approach was selected as it allowed the researcher to, "...see and make sense of collective or shared meaning and experiences" (Braun & Clarke 2012, p. 2) and identify "...what is common to the way a topic is talked or written about and of making sense of those commonalities." (Braun & Clarke 2012, p. 2). This approach was appropriate for extracting the participant's personal perceptions and experiences of their most difficult challenges in the early years on the talent pathway and then integrating these experiences to develop an overall picture. Interview transcripts were analysed predominately via inductive TA; a bottom-up approach, focused on deriving codes and themes from what is in the data (Braun & Clarke, 2012). In this context, I was subsequently able to "give voice" to the experiences and meaning of the participant's responses in the results. More specifically, Braun and Clarke's six phase approach to TA (2006) was utilised during the data analysis process which was led by the first author. These phases were (a) familiarise yourself with the data, (b) generate initial codes, (c) search for themes, (d) review potential themes, (e) define and name themes, and (f) produce the report.

6.2.5. Trustworthiness

The use of qualitative software (QRS NVIVO 9) helped enhance the trustworthiness of the data analysis process. Several additional steps were taken during the data analysis stage as

outlined in Chapter 3. Through a constant comparative process, my supervisor reviewed the annotated and coded transcript. When a discrepancy in interpretation was found, my supervisor and I referred to the original transcript, discussed the notes and themes and agreed on a consensus position. This occurred in three out of eight transcripts, where there were a moderate number of discrepancies. More specifically and across the three transcripts, consensus was reached on the appropriateness of initial codes aligning to specific psychobehavioural skills and how the diversity of social support, identified by participants to embrace their challenge experience, would be represented in the thematic analysis. This system was applied to all transcripts, expanding to integrate new concepts as they appeared, thus allowing referral amongst all transcripts (Smith & Osborn, 2003). Following each interview, participants were sent their transcript via email and asked to check if the transcript did not represent their experiences of negotiating difficult challenges on a talent pathway, if they had additional information to share, or remove. One participant responded to provide additional details around their experiences of negotiating and reflecting on their most difficult challenge. This information was reintegrated into the data analysis process for this participant. This participant provided more specific insight into the sacrifices they made to aid in the navigation of their challenge experience.

6.3. Results

The purpose of this study was to explore what young athletes experienced during their most difficult challenges and how youth athletes negotiated their most difficult challenges as they transitioned from the specialisation to the investment phase of development on the talent pathway. The results begin with an overview of the participants' self-reported most difficult challenge experience, plus the perceived impact and emotional disturbance of this challenge (Taylor & Collins, 2020) as they transitioned into the investment phase of development (i.e., the transition to a higher competition level, training monotony, high workload across multiple

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domains, playing up an age grade and severe injury.). For clarity, these results were developed from the data collected in interview 1. The second part of the results section then considers the participants' experience of their self-reported most difficult challenge, how it was navigated, negotiated and the extent to which these experiences informed participants approach to future challenges. These themes are displayed in table 6.2 from the results developed from the data collected in interview 1 and 2. These themes are also presented in the results section with exemplar quotations to illustrate the analysis.

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Table 6.2 Thematic Analysis

Raw Data	Lower Order Themes	Higher Order Themes
“My challenges were unique to me” (87.5%)		
“My challenges were harder than others” (75%)	Highly Individualised Experience (100%)	
Challenge as an opportunity to improve (75%)		
Understanding performance expectations (75%)		Bespoke Nature and Impact of the Challenge (100%)
Ability to step up to the level (87.5%)	Developmentally Advanced (100%)	
“Big, but embrace it” (62.5%)		
Makes normal seem easy (37.5%)		
Love for the sport (75%)		
Part of the journey to the top (87.5%)	Challenge Perceived as Growth (100%)	
Gives meaning and purpose to training (50%)		
A willingness to graft (75%)		
Self-critical (50%)		
Unsatisfied with progress (50%)	Striving for Improvement (75%)	
High levels of task adherence (25%)		
Desire to optimise sporting potential (25%)		Psychobehavioural Skills for the Challenge (100%)
Willingness to make sacrifices (50%)	Commitment to Excellence (100%)	
Willingness to graft (87.5%)		
Excellence in sport and more (50%)		
Mapping out one’s future direction (75%)	Goal Setting and Performance Evaluations (75%)	
Narrowing the focus in sport (50%)		
Realistic performance expectations (25%)		
Confidence to back oneself (75%)	Self-belief (75%)	
Expressing oneself in sport (50%)		
Need to take on the best (25%)		

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Motivated to do one's best (62.5%)	Competitiveness (87.5%)	Diverse Social Support to Embrace the Challenge (100%)	
Perseverance to reach the top (50%)			
Technical and tactical support (75%)	Multifaceted Role of the Development Coach (100%)		
Psychosocial support (62.5%)			
A balance of challenge and support (62.5%)			
Young athlete at the heart of it (75%)			
In support of each other (62.5%)			
Pushing boundaries together (50%)			
Learning from role models (37.5%)			
Empathetic with the challenge (50%)			
Helpful and interested in supporting (75%)	Non-Sporting Social Support (100%)		
There when one needs them (37.5%)			
Well defined support role (75%)			
Willingness and desire to develop (62.5%)			
Critical self-analysis (75%)			
Coach support in self-analysis (25%)	Development through Transformational Experiences (100%)	Preparation for Future Challenges (100%)	
Need for downtime (50%)			
Life outside of sport (62.5%)			
Importance of improving strengths (25%)			
Importance of developing weakness (87.5%)			
High personal standards (62.5%)	Developmental Planning for Success (100%)		
High levels of engagement (37.5%)			
Motivated to succeed (62.5%)			

6.3.1. Most Difficult Challenge

The young athletes identified different aspects of their transition from the specialisation to investment phase on the talent pathway as ‘most difficult’. Participant 1, 6, 7 and 8 identified their most difficult challenge as the transition to a higher level of competition. For example, participant 1 was overwhelmed by the high-level competition environment in their sport of swimming and expressed anxiety towards their swimming performance as they stated, “I just get really nervous, particularly as I have reached higher levels of competition. I want to try and enjoy the competition more; I love training and training harder but not enjoy the racing. I’m trying to love the racing more”. Participant 6 recognised their lack of competition experience at an international level in their sport of golf, with the perceived impact of performance anxiety. In this context, Participant 6 stated, “It was quite hard to keep up with them (international juniors). I found that tough. I hadn’t played at that level before, so it was a surprise, it was a good experience for me”. Participant 7 also interpreted the impact of transitioning to a higher competition level as performance anxiety in their sport of hockey. However, Participant 7 recalled lacking the belief in their ability to perform at an international level:

When I got onto the (international) pathway, I thought it would be really easy. Then I quickly realised that the level was very high, so I was thinking, ok this level is good and I found it really tough to step up to that level. I was really worried about and it really effected my hockey.

Participant 8 perceived the impact of their transition to a higher competition level as performance anxiety. Participant 8 expressed a perceived pressure to perform for international squad selection in their sport of swimming. For example, Participant 8 stated, “I really want to excel on my sprints because those are the ones I am closest to for national selection. I kind of

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want to focus on those events. At summer nationals I got like top 5 places I most of my events, but now I need to take it to the next level”.

In contrast to Participants 1, 6, 7 and 8, Participant 2 identified their most difficult challenge as training monotony. In this sense, Participant 2 recognised a lack of competition in their swimming training on the talent pathway and identified the need to experience stretch and challenge as a key aspect of their development through their training regime. Participant 2 stated, “Competing is always the main goal and swimming as fast as possible in the best meets. Everything else is just part of the process, part of the jigsaw, I want training to be competitive and push me”.

Participant 3 identified their most difficult challenge as a high workload across multiple domains including sport, academics, and music. For example, Participant 3 stated, “January, February time, all of the schoolwork starts to pile up. You still have all the training to do as well. There was just so much going on with club hockey, national cup games for school, national age group competitions and camps. It does all build up”. The perceived impact of this most difficult challenge was an overload of demands across these domains with the task of prioritising time and energy into their hockey in the context of these competing demands.

The most difficult challenge identified by Participant 4 was playing up an age grade in the sport of rugby. The perceived impact of this most difficult challenge for Participant 4 was performance anxiety. Participant 4 stated, “I got selected for the first few games, I was in the first team squad. I was a bit worried at the beginning if I’m honest. I didn’t know any of the call and any of the moves, I felt like I was completely out of place and everything”.

Participant 5 acknowledged their most difficult challenge as severe injury. The perceived impact of severe injury for Participant 5 was of a loss of training and competition exposure on the talent pathway. As such, this participant recalled striving to return to preinjury

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training load and performance standards in their sport of swimming. Participant 5 identified the uniqueness of their talent pathway journey by stating, “with my injury and all that work to get to where I am now, I think it’s been different to all the swimmers I know. I really struggled with the injury. I think my season has been more extravagant than most because of that”. In summary, it is interesting that different challenges were identified by the participants and more so, the idiosyncratic interpretation of particular challenges by this group of young athletes.

6.3.2. Navigating and Negotiating the Challenge

All participants reported the *bespoke nature and impact of the challenge* on the talent pathway. Participant 8 described this as a *highly individualised experience* (100%) through their most difficult challenge:

I think it's quite unique to me. Obviously, people never go straight up, there will always be ups and downs. I was pushing so hard; it wasn't all going to go to plan. Everybody is different though. Everybody's on a slightly different journey based on those things. Everybody's goals are going to be different so that effects it as well.

Indeed, all participants identified their most difficult challenge as being *developmentally advanced* (i.e., an experience or stimulus that required a step up in performance by the young athlete). For example, Participant 7 reflected on their ability to step up to the next level as they stated, “I think it was how everybody got really competitive. When we got to national squads, every just stepped up their level and wanted to show what they are capable of. It took me a while to do that as well. It took me a while to get really serious with it”. Finally, all participants identified their most difficult challenge as a growth opportunity, e.g., *challenge perceived as growth*. In this sense, Participant 2 described their *love for the sport* and more specifically, their love for competition as they stated, “I chose to do it. I like the pressure. I like the flashing lights

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and my name being called out. It's the competition and the competitiveness bit. If I want to achieve my goal then I have to swim fast, especially in the biggest meets."

All participants identified the deployment of *psychobehavioural skills for the challenge*. Most participants referenced *striving for improvement* (75%) in their performance level in their sport. In doing so, all participants expressing a *commitment to excellence*. As exemplified below, Participant 5 expressed their commitment to navigate their challenge as they stated, "I am very persistent, and I will defiantly do whatever it takes to do the best I can. I never get down if I don't PB. That's why it wasn't a big issue for me not hitting PBs when I was coming back from injury". In addition, Participant 3 recalled the sacrifices they had to make to ease the demands on their sport and academics, highlighting their commitment to their challenge:

I dropped a GCSE, which was a sacrifice. It has given me more time and less homework in the evenings. It has given me more time for training and more time to catch up on any work I have missed because of hockey. That's been really helpful, and I don't feel under so much pressure.

Most participants identified *goal setting and performance evaluations* (75%) to support this process. Participant 1 referenced the use of goal setting to enable them to navigate their challenge of transition to a higher competition level as they stated, "*At summer nationals I was still really nervous, but I was more focused. I feel like I'm in the process of getting it a bit more. It's been about making it more fun, just focusing on racing hard and chasing PBs, nothing else matters*". Furthermore, most participants expressed *self-belief* (75%) in the context of their most difficult challenge. As an example, Participant 4 expressed a desire to display their performance potential in a higher age grade as they stated, "*At the end of season, I want to be thinking, right I'm one of the best here, I've shown everybody what I can do. I want to try and lead it and obviously impress the coaches. I know I can step up and play well at that level, I*

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just need to show it”. Most participants referenced a *competitiveness* to do their best (87.5%).

In this sense, Participant 8 identified how their current training methodology did not allow them to optimise their performance at major selection events relative to their competitors:

I felt like most people at my age, the way that their coaches prepare them, they do very well at big meets and prepare for the big competitions and train through the easy ones.

I haven't really worked like that. I need to start being more selective to compete with them.

To help navigate their most difficult challenge, all participants recognised the positive impact of *diverse social support to embrace the challenge*. All participants identified the *multifaceted role of the development coach*. More specifically, Participant 4 identified a *balance of challenge and support* provided by their coach, “I know the coaches watched me play more and they know what I am like and how to coach me best. They can tell if I am having a bad day. If I have had a bad day at school the coaches encourage me and give me a pick me up. Sometimes it's just a quick chat and that works”. Most participants recognised the *social support in sport* (75%) provided by their immediate family, including Participant 1 as they stated:

My sister is a swimmer as well, I know she gets what I am going through at big meets.

My parents both work in swimming so they understand the ups and downs. My family were more there for me during those low points (at major competitions). They help give me some perspective on my swimming.

Moreover, participants also recognised the role of *non-sporting social support* (100%) to support them through their most difficult challenge. For example, Participant 4 was a boarding school pupil and acknowledged the role of their houseparent in providing emotional support to help them optimise their potential through their challenge:

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He really understands rugby and he is very supportive. He understands how much I want to perform well and how exhausted I get. He gives me some slack in the house, like not having to attend house functions. It's helpful what he does.

All participants interpreted the navigation of their most difficult challenges as *preparation for future challenges*. Indeed, during the second interview all participants identified *development through transformational experiences*; a change process culminating in a shift in one's sense of self and way of being (Katonah, Grafanaki, Krycka, & McDonal, 2018). For example, in relation to playing up an age grade in the following pre-season, Participant 4 stated:

I am looking forward to that (pre-season), I am ready to step up. I have done a lot of training with the old years so that helps loads. It prepares you physically. Mentally as well, the intensity of training at school is high and I feel ready to play at an even higher intensity.

Furthermore, participants (100%) identified that the difficult challenge they experienced also helped them to engage in *developmental planning for success* to aid in better preparing for future challenges. In the context of planning to overcome the challenge of experiencing high workloads across multiple domains, Participant 3 stated:

What I used to do was leave it to the last minute (planning) and feel stressed that I would let people down because of hockey. I made this whole calendar with music, sports, schoolwork, exams and everything so now I can see clashes, they just pop up and I can speak with the people really early and talk about the best options related to my goals.

Finally, most participants referenced striving to achieve success (87.5%) as preparation for future challenges. In this sense, Participant 8 identified their *high personal standards* as they

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stated, “When I swim, I always expect that I’m going to PB every time. That’s what I think when I step into pool side. I was still top 3 or top 5 in the country. I will take it, but you always want more”.

6.4. Discussion

The talent pathway in sport represents a dynamic, nonlinear, and unpredictable journey for young athletes (Gullich, 2014). In addition, the recruitment of young athletes onto formalised and selective talent pathways is occurring at an increasingly younger age (Baker et al., 2018). As such, the exposure to and experience of difficult challenges on the talent pathway is likely to be unavoidable for all but the minority of young athletes. The purpose of this study was to explore what young athletes experienced during their most difficult challenges and how youth athletes negotiated their most difficult challenges as they transitioned from the specialisation to the investment phase of development on the talent pathway. The design of this study allowed participants to explore their reflections of their most difficult challenges and the potential influence of this on their preparedness for future challenges. Exploring the experiences of currently young athletes in the early years of their talent pathway journey may provide coaches the opportunity to better utilise challenge and support at the beginning of *and* along the pathway.

It may be timely at this point to compare the nature of the challenges experienced by young athletes in this study with the nature of the challenges experienced by adult athletes in previous retrospective studies around challenging experiences in sport. Sarkar et al. (2015) reported a range of sporting (e.g., repeated non-selection, sporting failure and serious injury) *and* non-sporting (e.g., political unrest and death of a family member) challenges in the development of senior Olympic performers. Taylor and Collins (2020) identified a range of challenges associated to the transition from junior to senior professional rugby league including a sport performance related challenges (e.g., lack of first team opportunities, pressure to

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demonstrate worth and deselection) and social related challenges (e.g., social difficulties in the 1st team and critique on social media). Savage et al. (2017) explored the challenge related experiences of senior international athletes. The authors quantified the participants perceived challenges under the headings ‘sport related’ (93.1%) and ‘illness related’ (6.9%). Indeed, research has acknowledged that growth following challenge can occur various levels: micro (e.g., individual), meso, (e.g., team) and macro (e.g., organisational) levels (Wadey et al., 2020) and be categorised into three areas: physical (e.g., athletic performance), interpersonal (e.g., enhanced positive social actions) and intrapersonal (e.g., new beliefs, adjusted philosophy). Taken collectively, such findings suggest the nature of the challenges recalled by senior athletes in retrospective study designs are multifaceted, complex and can be sporting or non-sporting in nature. However, the nature of the challenges shared by young athletes in this study were more focused on individual experiences of either physical challenges *in* sport (e.g., severe injury and training monotony) or intrapersonal developmental challenges *in* sport (e.g., the transition to higher level competition, the experience of high workload, playing up an age grade).

Recent evidence suggests that impactful and challenging experiences in the development towards expertise can result in a rise in emotional intensity or emotional disturbance (Taylor & Collins, 2020). Importantly, these authors highlight a potential association between the level of challenge and the resultant emotional response. In the context of this study, the characteristics of the individual may impact the response to challenge (Huntsinger, 2013; Taylor and Collins, 2020) and such response may be dependent on the interpretation of the scale and impact of the challenge. Thus, such ‘wave like patterns’ (Ollis, Macpherson, & Collins, 2006) of response may be representative of the capacity of talent pathway practitioners to scale challenging experiences on the talent pathway and subsequently “up or down regulate” the individual response of the young athlete. In this sense, the

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development of the psychobehavioural factors, and confidence in their deployment prior to experiencing a “difficult” challenge, along with social support during the challenge may be the critical factors for successful navigation of early challenge. By focusing on the nature, impact, and scale of the challenge that young athletes experience on the talent pathway, we would suggest that uniform approaches to the deployment of challenge experiences may be ineffective given the individual interpretation of such experiences. We therefore propose that although talent may *need* challenge (Collins and MacNamara, 2012; Savage et al., 2017), challenge is in the eye of the beholder and challenge on the talent pathway is representative of the complex, dynamic and individualised nature of talent development (Henriksen & Stambulova, 2017; Kilic & Ince, 2020; Martindale et al., 2007; Savage et al., 2017).

Interestingly, participants in this study described a range of psychobehavioural skills they deployed during their most difficult challenge. Although the importance of psychological skills in supporting development via learning through talent pathways is well established and discussed in Chapter 2 (Bjorndal, Ronglan, & Andersen 2017: Taylor & Collins, 2019), this study explored how young athletes deployed psychobehavioural skills to negotiate early and difficult challenging experience in their investment years on the talent pathway. The findings of this study add to the literature in this area (Rumbold, Rumbold, & Stone, 2020; Taylor & Collins, 2019; Williams & MacNamara, 2020) by showing that youth athletes in the early years of the talent pathway apply psychobehavioural skills, such as striving, commitment and competitiveness to navigate their most difficult challenges. The deployment of these skills across the course of a difficult challenge appears to be influenced by prior challenging experiences on the pathway. Such intrapersonal growth following a challenge has been highlighted in the research literature previously (Howells et al., 2017; Wadey, Roy-Davis, Evans, Howells, Salim, & Diss, 2019). Of course, the picture is more complicated than challenge equals development. For example, authors have identified that positive change

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following adversity can be facilitated as growth (i.e., in the case of this study the development of psychobehavioural skills), young athletes can be encouraged to act on opportunities available to them post challenge (i.e., in the case of this study embracing future challenges) and young athletes can be encouraged to be grateful for the support from others (i.e., in the case of this study recognising the contribution of diverse social support) (Wadey et al., 2020).

The importance of social support for the young athlete was also a key factor in participants navigating their most difficult challenge (cf. Baker et al., 2018). The coach, sporting peers, family and friends were identified as providing a critical balance of challenge (technical/tactical/psychosocial areas) *and* emotional support (sharing of prior experiences and logistical support). Research has previously identified a range of supportive stakeholders existing within a young athlete's micro-environment (Franck & Stambulova, 2020; Gould, 2017; Henriksen et a, 2011). Indeed, this points to the importance of what key stakeholder can do for the athlete, not necessarily who they are (Cruz & Kim 2017; Storm, 2015). The findings of this study suggest talent pathway practitioners should recognise the specific contribution of a range of psychobehavioural skills and a coherent and diverse network of social support that can assist young athletes to navigate difficult challenges in the early years on the talent pathway. In doing so, such practitioners may also embrace the challenge and support from social stakeholders who have the capability to help shape the experience for the young athlete. In this sense, the challenges presented here could be considered mostly or fully structured by their coaches and/or the key stakeholders associated to the young athlete (e.g., the experience of training monotony, high workload, providing appropriate competitive experiences). This highlights the importance of the interpersonal relationships young athletes have with their closest network of support (Felton & Jowett, 2013; Jowett, 2008; Taylor et al., 2022). When optimised, such relationships may allow for more conducive and proactive solutions with

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which to engage in experiences that are appropriately challenging and suitably positioned on the talent pathway.

Against the call for longitudinal and prospective research in talent development, it may be important to explore the evolving and dynamic nature of negotiating difficult challenges as young athletes' transition further on the talent pathway and through the investment phase. Consequently, further exploration of how coaches on the talent pathway construct experiences and/or provide the support that is needed to facilitate athlete development in the content of such emergent and individualised experiences may be valuable. Given the dynamic and fluid nature of psychosocial development and identity formation during adolescence (Becht, Klapwijk, Wierenga, van der Cruijsen, Spaans, van der Aar, Peters, Branje, Meeus, & Crone, 2020), future research may examine the nuanced response to difficult challenges between chronological age groups during this period of maturation. Research on this topic could also explore individual differences (e.g., gender) in the negotiation of challenges. With the rapidly developing landscape of women's and girl's sport, a more specific insight into how females interpret challenges compared to males would be a useful step. Given the nature of the study design, there are of course some limitations to the interpretations provided. Given the personal nature of the difficult challenges, there is a risk of impression management. This may have resulted in the participants reporting overly positive and growth-enabling accounts of their most difficult challenge experience compared to their actual experience of the challenge. Furthermore, the experiences of the participants are not triangulated with views from significant others involved in the challenges (i.e., coaches, parents, friends and/or family). Such triangulation would provide richer insight into the specific role that social support may play for young athletes through challenging experience in sport. However, given our aim was to explore individual and unique experiences of challenges on the talent pathway, triangulation of data was not a key concern.

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Given the call by previous researchers to further explore the experiences, processes, and mechanisms that athletes utilise to navigate challenging experiences in sport (Collins et al., 2019; Savage et al., 2017), I believe the findings of this study provide a novel insight into the interpretation of challenging experiences for young athletes in the early years of the talent pathway. In particular, the participants recognised the bespoke nature and impact of their most difficult challenge, despite the potential for external perception of these challenges as being ‘par for the course’. This highlights that the individual impact, nature, and interpretation of the challenge may be equally or more important than the challenge itself (i.e., challenge is in the eye of the beholder). Prior empirical research shows that challenging experiences can provide the opportunity to progress or refine an athlete’s abilities (Bjorndal & Ronglan, 2017; Savage et al., 2017). However, a lack of appropriate challenge, the absence of a supportive and motivational climate and a lack of psychological resource has been identified as derailing for young athletes on the talent pathway (Rothwell, Stone, Davids, & Wright, 2018; Taylor & Collins, 2019). Therefore, talent pathway practitioners may play a critical role in supporting the young athlete to interpret, deconstruct, and then make sense of challenges. In this context, practitioners should consider the individual needs, individual interpretation, and the scale (i.e., difficulty) of the challenge if they are to optimise the experience for young athletes.

Talent pathway practitioners may benefit from more systematically identifying the potential of, and preparation for, difficult challenges by supporting the teaching, development, and refinement of skills through periodised challenge (i.e., least to most difficult). Critical to this process may be the skilful development and deployment of psychobehavioural skills supported by a diverse yet coherent network that offers support to the young athlete relative to the scale of the challenge. In this context, robust review and feedback processes need to be embedded into the talent pathway in collaboration with the young athlete *and* their social support, in doing so emphasising the relational, interactional, and individual nature of challenge

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experiences. This emphasises talent pathway stakeholder capability to periodise (varying levels of difficulty at particular times), prepare (teaching and tweaking) and individualise (bespoke to each young athlete) challenges in the early years of the talent pathway *and* with currently young athletes, ensuring that enough time is allocated for the learning of the skills and building confidence in their deployment.

Chapter 7: Making Sense of the Challenge: Forecasting and Reflecting on Challenging Experiences on The Talent Pathway

7.1. Introduction

Experiencing a developmental challenge is likely to cause a degree of disturbance for a young athlete and this may have both short- (i.e., a dip in current level of sporting performance) and long-term (i.e., decreased access to coaching resources or deselection from a talent pathway) implications. The developmental impacts of such events are thought to accrue because of significant cognitive disruption which challenges an individual's narratives, beliefs, goals, and creates significant negative emotions (Calhoun & Tedeschi, 2006). The nature of this disruption is dependent on an individual's perceptions and interpretations of the challenge and therefore, understanding the young athlete's experience of challenge may be crucial (Savage et al., 2017). Indeed, Chapter 2 explored literature that suggested preparing for, monitoring through, and debriefing after challenging events can optimise growth and minimise disturbance in a range of performance domains. As such, the ability of athletes to forecast, proactively prepare for and then negotiate, and reflect on challenging experiences appears to be developmentally important. However, less is understood in talent development terms about how young athletes *and* their coaches engage in this process. For example, and more specifically, how young athletes initially forecast and then reflect on the challenging experience, particularly in the moment of the experience. Young athletes will inevitably encounter a range of micro challenges both as a feature of daily life and as part of their sporting development. However, in this study I was interested in major and memorable challenges that may test and/or disrupt a performer's development over an extended period of time (Savage, 2019). Awareness of research on athletes' lived experience of challenge on the talent pathway may be an important step in supporting our understanding of navigating challenging

experiences, especially considering the volatile nature of development for young athletes in sport (Ackerman, 2013; Gullich, 2014; Honer et al., 2015).

Reflecting the paucity of research on challenge experience in young athletes and recommendations to explore the temporal and prospective development of challenge in young athletes through longitudinal tracking (Sarkar et al., 2014; Savage et al., 2017), we were interested in exploring the forecasting and reflections of participants over a 5-month period on the talent pathway. The five-month period between interviews was chosen to allow the participants to experience a full season or off season on the talent pathway and the opportunity to capture participants' experiences of forecasting and negotiating challenges during this period. Indeed, we aimed to extend these recommendations further by utilising multiple data sources and thus corroborate findings from young athletes with testimony from their coaches. As a research strategy, triangulation has been proposed to test the validity of a phenomena (Denzin, 1978; Patton, 1999). Gathering the experiences of young athlete *and* their coaches during challenging experiences will help in corroborating the overall experience of the challenge for the young athlete, increasing the validity and reliability of the data collection. Therefore, the purpose of this study was to examine how young athletes *and* their coaches experienced the most difficult challenges (as self-identified by the young athletes) at a phase of the talent pathway equivalent to the transition between specialising and investing (Côté, 1999). Drawing on the work of Savage (2019), most difficult challenge refers to major and memorable challenges that may test and/or disrupt a performer's development over an extended period of time. Specifically, we aimed to 1. Explore what young athletes and their coaches forecast prior to the young athlete experiencing their most difficult challenge and 2. Explore what young athletes and their coaches reflected on after the young athlete had experienced their most difficult challenge (5 months later).

7.2. Method

7.2.1 Philosophical Positioning

The design of this study was aligned with the pragmatic research philosophy as outlined in Chapter 3. The pragmatic research philosophy meant that I choose a multi-methods design incorporating qualitative interviews (including triangulation) and a tracking approach at two time points separated by five months to research an applied and topical issue in the context of talent development in sport i.e., the navigation of challenging experiences.

7.2.2. Participants

13 participants were purposefully sampled (Palinkas et al., 2015) based on their status as young athletes ($n = 8$) or their employment as coaches ($n = 5$) coaching the young athletes on a talent pathway in sport. This sampling approach enhanced the study's analytic generalisation by allowing the findings to provide a richness and depth that is valid to the reader (Firestone, 1993). The young athletes were transitioning from the specialisation (characterised by a balance between deliberate play and practice, with a reduced engagement in several sports; Côté, 1999) to investment years (including activities involving a high amount of deliberate practice, a low amount of deliberate play and a focus on one sport; Côté, 1999) of participation and now part of a formalised and selective talent development pathway in the United Kingdom. Participants were identified and recruited via personal networks in sport. All the young athletes were in the early years of their talent pathway in either individual or team sports. Specifically, the young athletes had competed at either a junior international level (i.e., swimming and golf), were in a professional sports academy (i.e., rugby), or were members of a selective national governing body talent pathway (i.e., field hockey). The coaches were employed as talent pathway coaches delivering at either a junior international or professional sport academy level. Given this context, the forecasting of, and reflections on, the most difficult challenge for the

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participants had relevance and personal significance (Pietkeiwicz & Smith, 2012). To note, three of the coaches underwent interviews for two young athletes each, on separate occasions, given their coaching roles with more than one young athlete in this study. The young athletes were female ($n=6$) and male ($n=2$), between 15 and 17 years (M age = 15.8, SD = 0.9 years) and of white British origin. Additional demographic information can be seen in table 7.1. The coaches were female ($n=2$) and male ($n=3$), between 29 and 44 years (M age = 35.6, SD = 5.9 years) with an average 11.6 years (SD = 7.7 years) of coaching and of white British origin. Additional demographic information can be seen in table 7.2.

Table 7.1 Young Athlete Profiles

Participant Number	Chronological Age	Sport	Age at Selection onto Talent Pathway	Years on Talent Pathway	Talent Pathway Coach
YA1	15	Swimming	15	0.5	Coach 3
YA2	15	Swimming	14	1.5	Coach 3
YA3	17	Field Hockey	15	2	Coach 1
YA4	16	Rugby Union	14	2	Coach 5
YA5	15	Swimming	14	1	Coach 4
YA6	16	Golf	15	1	Coach 2
YA7	17	Field Hockey	16	1	Coach 1
YA8	15	Swimming	15	0.5	Coach 4

Table 7.2 Coach Profiles

Participant Number	Chronological Age	Sport	Years Coaching on Talent Pathway	Talent Pathway Athlete/s
Coach 1	37	Field Hockey	14	YA3, YA7
Coach 2	44	Golf	24	YA6
Coach 3	29	Swimming	5	YA1, YA2
Coach 4	31	Swimming	7	YA5, YA8
Coach 5	37	Rugby Union	8	YA4

7.2.3. Procedures

Following research ethics board approval, after receiving individual consent from the coaches and assent from the young athletes, participants engaged in an interview process to develop an understanding of their lived experiences of negotiating difficult challenges during the young athlete's most recent season or off season. To note, ethics board of approval was granted to provide details on the young athlete and coach profiles as per tables 1 and 2. Each participant engaged in two semi-structured interviews separated by five months. The young athletes were interviewed first for both sets of interviews. Their coaches were then interviewed within seven days of the young athlete's interviews. The first interview explored the nature (i.e., overview of the challenge and the impact of the challenge on the young athlete) and forecasting of the young athletes' most difficult challenge and how prepared the young athletes were for these challenges since transitioning into the investment phase. For reference at the start of interview 1, coaches were informed of the 'most difficult' challenge identified by their young athlete. In interview two, participants were asked to reflect on the 'most difficult' challenge experience for the young athlete that was identified by the young athletes in interview 1. To confirm, coaches 1, 3, and 4 were interviewed twice, on separate occasions, due to their role coaching two young athletes who participated in the study. Details of which coach coached which young athlete can be seen in table 2. Interviews were conducted one to one and recorded on a dictaphone. Interviews were arranged to suit the participants and took place in a quiet location. The young athlete interviews lasted an average of 39 minutes ($SD = 3$ minutes). The coach interviews lasted an average of 46 minutes ($SD = 4$ minutes). An interview guide, consisting of the main questions for the young athletes and their coaches (see table 3), probes and prompts was employed (Pietkiewicz & Smith, 2014). Follow up questions for interview 1 included: Why is this your most difficult challenge? Why do you think/do you not think this will be the same for everybody on your team? Why do you feel prepared/unprepared for this

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challenge? Follow up questions for interview 2 included: Why was the challenge like that for you in your sport? Why was this the same/not the same for everybody on your team? Why did you feel prepared/unprepared for this challenge? This format also gave scope for reordering of questions and the ability to reroute the interview based on perspectives offered by the participant. It is important to note at this point that, as per table 3 and the example follow up questions provided above, the focus of the interviews was not on why or how the most difficult challenge was specific to the sport that the young athlete participated in, but more so to the experience of the challenge being in the context of a talent pathway (i.e., a formalised and selective pathway) more generally.

Table 7.3 Main Interview Questions for Young Athletes and Their Coaches

Number	Interview One for Young Athletes	Interview Two for Young Athletes
1	What will be the most difficult challenge for you in your sport over the coming months?	Based on the challenge identified in interview 1, what happened over the past 5 months?
2	What will help you the most during this challenge?	What was the challenge like for you in your sport?
3	Do you think this will be the same for everyone on your team?	Was this the same for everyone on your team?
4	How well prepared do you feel for this challenge?	How well prepared were you for this challenge?
5	What do you think is going to happen with your sport over the next 4-5 months?	Did you think this was going to happen with your sport over the past 5 months?

Number	Interview One for Coaches	Interview Two for Coaches
1	What will help the young athlete the most during this challenge?	What was the challenge like for the young athlete you in your sport?
2	Do you think this will be the same for everyone on your team?	Was this the same for everyone on your team?
3	How well prepared do you think the young athlete will be for this challenge?	How well prepared was the young athlete for this challenge?
4	What do you think is going to happen to the young athlete over the next 5 months?	Did you think this was going to happen to the young athlete over the past 5 months?

7.2.4. Data Analysis

The interview transcripts were transcribed verbatim. An interpretative phenomenological analysis (IPA) was then conducted. The aim of IPA is to investigate and interpret a common phenomenon by those who have the lived experiences of that phenomenon. In this sense, IPA is, “...concerned with the detailed examination of human lived experience. And it aims to conduct this examination in a way which enables that experience to be expressed in its own terms...” (Smith, Flowers, & Larkin, 2009 p.32). Given that the aims of this research were orientated around the lived experiences of the young athletes and their coaches, IPA was chosen to understand the complexity and content of the individual challenge experiences. In doing so, the authors felt IPA would offer practitioners in the field of talent development a vivid insight into the most difficult challenge experience of participants. Analysis was completed in a stepwise manner based on the recommendations of Smith & Osborn (2007) whereby:

1. The lead author read each transcript and points of interest related to the participants experience of the young athletes most difficult challenge were annotated in the left margin. My supervisor reviewed the annotated transcripts.
2. Themes relating to the participants forecasting of and reflections on the young athletes most difficult challenges were identified from the transcripts and documented in the right margin by the lead author.
3. The lead author clustered the identified themes (Smith & Osborn, 2007) from all transcripts as related to step 2, taking account of the researcher’s interpretation, on a separate document. Qualitative software (QRS NVIVO 9) was used at this stage.
4. A hierarchy of themes from the data relating to the forecasting of and reflections on the young athletes most difficult challenges were established to provide a structure to the analysis process (Biggerstaff & Thompson, 2008). My supervisor reviewed the hierarchy of themes.

5. A table of superordinate and subordinate themes as well as raw data exemplars was created related to the forecasting and reflecting on the young athletes most difficult challenges (see appendix A). My supervisor reviewed table of superordinate and subordinate themes, as well as raw data exemplars.
6. The lead authors then used a range of anonymised quotations from the raw data in the results section to give individual meaning to the participants' experiences of the most difficult challenges. My supervisor reviewed the range of anonymised quotations from the raw data used in the results section.

7.2.5. Trustworthiness

A constant comparative process, as outlined in Chapter 3 was utilised in this study. My supervisor reviewed the annotated and coded transcript and when a discrepancy in interpretation was found, we both then referred to the original transcript, discussed the notes and themes and agreed on a consensus position. Participants were sent their final transcript via email and asked to reply if they felt the transcript did not represent their experiences of forecasting and reflecting on the young athletes' most difficult challenges on a talent pathway. Two participants responded in total, one participant in each phase of interviewing, to provide additional details around their experiences of negotiating and reflecting on their most difficult challenge. This information was reintegrated into the data analysis process for these participants. Notably, these participants were youth athletes and the additional details provided through the checking process were related to their forecasting of transitioning to a higher competition level and the challenge as part of development and reflecting on the individuality of the challenge experience in relation to severe injury and the impact of the loss of training time compared to their peers.

7.3. Results

The purpose of this study was to examine how young athletes *and* their coaches experienced the most difficult challenges (as self-identified by the young athletes) at a phase of the talent pathway equivalent to the transition between specialising and investing (Côté, 1999). More specifically, I aimed to 1. Explore what young athletes and their coaches forecast prior to the young athlete experiencing their most difficult challenge and 2. Explore what young athletes and their coaches reflected on after the young athlete had experienced their most difficult challenge (5 months later). Although all young athletes were at a similar stage and age of development and all transitioning to higher levels of competition on the talent pathways in their sports, there was a variety of events that were identified as ‘most difficult’ by the young athletes. Specifically, the young athletes identified challenges associated to the transition to a higher competition level, training monotony, workload across multiple domains, playing up an age grade and severe injury. Table 7.4 provides an overview of the challenges identified by the young athletes and the self-identified impact of these challenges on the young athletes. Table 7.5 outlines the forecasting and reflection themes identified by the participants based on the most difficult challenges experienced by the young athletes (6 superordinate themes, 26 subordinate themes and 26 raw data exemplar quotes). The two superordinate themes associated to the forecasting of the challenge were perception of the challenge and what lies ahead through the challenge. The four superordinate themes associated to reflecting on the challenge were psychobehavioural skills for the challenge, navigating the challenge experience, complexities of the challenge experience and lessons learnt through the challenge experience.

Table 7.4 Most Difficult Challenge Themes, Self-Identified Impact and Descriptor

Participant	Most Difficult Challenge	Self-Identified Impact	Descriptor
1	Transition to higher competition level	Performance anxiety	Overwhelmed by high level competition environment
2	Training monotony	Lack of competition in training	Requires stretch and challenge in training
3	High workload across multiple domains	Overload of demands across multiple domains	Prioritising time and energy across academics, sport and music
4	Playing up an age grade	Performance anxiety	Desire to display performance potential in a higher age grade
5	Severe injury	Loss of training and competition exposure	Striving to return to preinjury training load and performance
6	Transition to a higher competition level	Performance anxiety	Lack of competition experience at an international level
7	Transition to a higher competition level	Performance anxiety	Believing in one's ability to perform at an international level
8	Transition to a higher competition level	Performance anxiety	Perceiving pressure to perform for international squad selection

7.3.1. Perception of the Challenge

During interview 1, participants described their understanding of the most difficult challenge as identified by the young athletes. For example, the role of *past experiences supporting awareness* of the challenge was identified and was seen as a perceived advantage over their peers on the talent pathway. In reference to the challenge of playing up an age grade YA4 stated, “I have done a lot of training with the old years so that helps loads. It prepares you physically. I have also had a lot of support with my physical training. I feel ready to play at an even higher intensity”. During interview 1, the young athletes also recognised the importance

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of prior experiences of their most difficult challenge on future playing opportunities in their sports: “I have shown everybody what I can do. I have had some opportunities this year, like playing with older players. Other players my age won’t have had so that will be good for me and all the physical training.” (YA4). Coach 4 also drew on prior experiences of young athletes moving up an age grade in their sport and the potential benefit of this challenge: “The more they learn in those environments the better they will be in future years. Others have done it and most kids adapt to it and they do quite well from it.”

During interview 1, young athletes forecasted their experience of their most difficult challenge, how they intended to prepare to navigate their challenge, and their perceptions of *challenge as part of development* on the talent pathway. For example, YA1 stated, “Keep to your routines, stay hydrated, get your pre pool done. And then just get through it because for example, you might go into competition one day and you can’t change the day of the competition so you might not feel good on the day. You just have to get on with it.”. Indeed, YA1 forecasted a change of event in their sport of swimming to help navigate their performance anxiety at competitions. Such learning was expressed by YA1 as they stated:

Part of our plan is to try some of the longer races and see how I go, no pressure but if it works then great. So, now I’ve done a few 800s in training it’s kind of like, well maybe this could be my event because it felt good, it fits my stroke. I just find it easier, its more natural.

During interview 1, Coach 3 forecasted their perception of the challenge for YA1 and more specifically their *awareness of the challenge through prior experiences* of the young athlete’s response to performing in high level competitions: “I know they get themselves uptight around the big meets. That can trigger their anxiety and illness around major competitions. I won’t air those concerns directly with them, I want to keep it positive for summer nationals”. Coaches’

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perceptions of the challenge seem important therefore, to help positively frame the young athlete's ability to navigate the challenge experience.

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Table 7.5 Forecasting and Reflecting on the Most Difficult Challenge

Superordinate Themes	Subordinate Themes	Raw Data Exemplar	Interview Number
Perception of the challenge	Awareness of the challenge through prior experiences	“I know they get themselves uptight around the big meets. that can trigger their anxiety and illness around major competitions” (Coach)	1
	Challenge as part of development	“You might go into competition one day and you can't change the day of the competition so you might not feel good on the day. You just have to get on with it” (YA)	1
	Challenge as a learning opportunity	“I feel like I have to prove myself on the pitch. I feel like I need to show them what I am capable of”	1
What lies ahead through the challenge	Confidence for the challenge	“The upwards curve that I am on at the moment will continue” (YA)	1
	Magnitude of the challenge	“The best players would be playing all day every day, like 6 hours, or like 8 hours. Those are the players I am up against, it's a big step up” (YA)	1
	Anticipation for the challenge	“They will be great. They have made excellent progress with their injury and are in a really good position” (Coach)	1
	Preparedness for the challenge	“They are fully prepared for that, they are better organised, prioritising their time and energy” (Coach)	1
	Embrace the challenge experience	“You've got to make the most of it, work hard and stay focused. Enjoy it as well. You've got to love it, love playing” (YA)	1
	Potential impact of the challenge	“It may cause some ups and downs for her in her hockey, but I think that's ok and an important part of her development” (YA)	1
Psychobehavioural skills for the challenge	Goal Setting for the challenge	“We have set goals for each race, and I know they have been very consistent with their training, at nationals it's just about focusing in on those small targets” (Coach)	2
	Commitment to the challenge	“They are really showing the effort to get themselves in order and back in the water as soon as possible” (Coach)	2
	Confidence in the challenge	“For them, it needs to be about self-focus, about their confidence. I need to give them things to be successful at, drills, targets, objectives” (Coach)	2
Navigating the challenge experience	Individuality of the challenge	“It depends on their confidence, their training, their form over the past 6 to 8 weeks. Their (swimming peers) ups and downs would have been different to mine” (Coach)	2
	The challenge environment	“They struggled with anxiety at the meet, that definitely crept back in that environment. The standard of swimming was high and that threw them” (Coach)	2
	Social support from coaches	“Your there as a listener, a friend, a mentor...I am there for support, to keep them on the right line and help where I can and as needed” (Coach)	2
	Social support from family, friends and teachers	“My teachers were very supportive, willing to help, I needed their help” (YA)	2
	Time away from the challenge	“It was quite fun not to have to do too much. I could pick and choose if I want to swim or not, played lots of football with my friends back home, went on holiday with my parents and just relaxed” (YA)	2
Complexities of the challenge experience	Highs and lows of the challenge	“I wasn't even expecting to like go to nationals and then I made it and I made finals and I kept on hitting fast times at nationals” (YA)	2
	A step up in expectations	“When you get to the Europe people (golfers), they're really tough to beat. It's a big step up, they're really good” (YA)	2
	High expectations across domains	“There is always something else to think about. Even when I am not on England camp I will have tasks, like commenting on videos and analysing a game. I know one of the coaches will be looking to see who has done the tasks and also because I want to learn more” (YA)	2
	A focus on long term development	“I wasn't really that nervous or anxious because I was thinking I've already achieved a lot this year” (YA)	2

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	Persistence through the challenge	“It’s always a good experience to play for England It takes a lot of work, it doesn’t come easy to many players, it’s a showcase of how hard you have actually tried” (YA)	2
Lessons learnt through the challenge experience	Gaining perspective on sport	“Swimming fast represents all the effort you have put it, it’s a reflection of you, your hard work. It’s an opportunity to display everything you are capable of, it’s more than just the time on the clock” (YA)	2
	Adapting to the challenge	“The fact that she was able to drop a GCSE then really helped her with her time management, took the stress off parts of her schedule, giving her space for work and play” (Coach)	2
	Personal investment in development	“They said ok, yes, I will do that, I will step up and give it a go. I think that attitude and the successes she has had to date are a reflection of how determined they are” (Coach)	2
	Realities of the challenge	“Actually, they are playing at that level a year young and so it’s no surprise given her limited hockey skills that it becomes a struggle” (Coach)	2

7.3.2. What Lies Ahead for the Challenge

During interview 1, YA1 described a rise in performance anxiety as they transitioned to a higher level of competition in their sport of swimming. Coach 3 stated how they supported YA1 to develop *confidence for the challenge* by maintaining a positive and comfortable climate, “I want to keep it positive, keep them focused on their aims. I know their response around competition. I need to be positive, upbeat, bringing energy into our conversations”. However, the step up in competition and the perceived magnitude of the challenge was overwhelming for YA1. YA1 described their nervousness for the challenge due to the high-performance standard of the other swimmers: “I just get really nervous at the big meets. The size of the meets, the standard of the swimmers. I know for summer nationals I need to just try to focus on fast swimming and nothing else. I need to just enjoy it more and take in the atmosphere” (YA1). Importantly, the young athletes recognised that, as they were aware of the upcoming challenge, they were able to proactively prepare for and have strategies ready to cope with their challenge experience. In the case of YA1’s performance anxiety, strategies focused on both psychological and technical preparation: “I know I haven’t nailed it yet (i.e., anxiety at high level competition environments), but it’s something I want to get to. I just try and improve every meet. I need to just keep my head down, train hard and focus on the skills I’m learning in sessions” (YA1).

During interview 1, YA6 suggested that their performance anxiety may be due to a lack of competition experience at an international level in golf. Although YA6 was anxious about international level competition due to their inexperience, coach 2 described how the performance results for YA6 were a key factor in providing *confidence for the challenge*. Coach 2 stated, “Because of the results they have had in the past 6 months their status has gone through the roof and now they are getting selected for international tournaments. They are thinking, actually I am good at this, and their confidence has gone sky high”. However, YA6

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made comparisons to the golfers they would be competing against in international tournaments and specifically the difference in time spent preparing for such competition. This led YA6 to recognise the *magnitude of the challenge* that was ahead as they stated, “I try and go (to practice) every day after school, like an hour and a half, two hours, yeah. The best players would be playing all day every day, like 6 hours, or like 8 hours. Those are the players I am up against, it’s a big step up”. Indeed, YA6 forecast the *nature of the challenge* of competing at an international level given their lack of experience at this level of competition. More specifically, YA6 identified the potential learning opportunities that may lay ahead, but also the consequences if they are unable to perform to the required level. YA6 stated, “If I don’t play well, I will learn from it. It’s still quite new for me (international competition) compared to some of the other players. There is a bit of pressure because if you don’t play well, you might not get to play in it the following year”. Despite prior success at a lower performance level, the youth athletes were aware of what lay ahead for them at a higher performance level through their forecasting of their most difficult challenge.

During interview 1, coach 1 forecast the *nature of the challenge* for YA7 relative to the development of their peers on the international pathway in field hockey. Coach 1 recognised the individuality of the development journey for YA7 in relation to their progression and performance levels: “I think they are in a rush to keep up with other players in the national age group programme. We know everybody develops at different rates and stages and levels. That has been the consistent message from me. Managing their expectations is really key”. However, during interview 1, YA7 forecast their transition to a higher competition level in line with their development on the pathway. YA7 expressed their desire to *embrace the challenge* and in doing so, develop their knowledge of international performance as they stated, “I hope this year I can just learn lots from England (national selection). There is five of us who will be around next year, so I think for us it is about learning and setting the standard for the new players coming

in". Forecasting YA7's *preparedness for the challenge*, coach 1 cited the deliberate and progressive exposure to international junior field hockey that was required for this individual given their current level of preparedness to perform. Coach 1 recognised the positive impact of this exposure for YA7 as they stated, "They will have some international hockey exposure this summer and that will be brilliant for them. They aren't quite ready for that level yet, but little bits of exposure will be good for their learning". It seems therefore, that what lies ahead for the challenge may be based on the capability of the young athlete to embrace the learning opportunity of the challenge experience.

7.3.3. Psychobehavioural Skills for the Challenge

During interview 2, coach 4 reflected on the most difficult challenge for YA8. In doing so, coach 4 recalled the experience of YA8 as they transitioned to a higher competition level in swimming. Coach 4 referenced the benefit of *goal setting for the challenge* with this young athlete, framing their target times relative to swimmers who had previously achieved national selection:

We (coach and athlete) went through a process of reviewing times that swimmers have reached in past major junior meets, where they are now in comparison and what they needed to do to get to those times. That was uncomfortable for them but was important for their development and reaching national selection (Coach 4)

In reference to their *commitment to the challenge*, YA8 identified the physiological benefit of committing to hard training and the positive psychological impact on their ability to engage in competition: "I know when my training is in the zone and I'm training hard, I do way better, I'm a lot fitter when I do that and that helps me a lot. And, because I'm fitter and feel like I'm training hard I worry less about the racing" (YA8). Through the application of psychobehavioural skills, such as goal setting and commitment, the young athletes were able to engage in the process of navigating their most difficult challenge.

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During interview 2, YA5 reflected on their *commitment to the challenge* of returning to swimming following a serious injury. YA5 reflected on the impact of missing a large proportion of training and competition and in doing so, reflected on their desire to make the most of every racing opportunity: “It wasn’t a big issue for me not hitting PBs when I was coming back from injury. Any race is good preparation for the big races, the ones that really matter. I have missed a lot of racing over the past year, so this season I just want to get stuck in and take every opportunity” (YA5). During interview 1, YA5 forecasted their *confidence in the challenge* of returning to their preinjury training level in their sport. YA5 anticipated a positive trajectory for their swimming performance stating, “Knowing what I have been through this year and knowing that I have made it, I will be wanting to perform well. The upwards curve that I am on at the moment will continue”. During interview 2, coach 4 reflected on their role in developing YA5’s *confidence in the challenge*. Coach 4 identified the need to focus on the processes of self-development and remove the focus on peer comparisons given the impact of their injury on their swimming. Coach 4 stated:

Biggest common theme for them is the comparison to others. Comparing against other swimmers and feeling that everyone is watching them. For them, it needs to be about self-focus, about their confidence given their lay off (due to injury). I need to give them things to be successful at, drills, targets, objectives, and not being faster than their peers on the national programme.

The synchronicity with which both coaches and young athletes valued and applied psychobehavioural skills in the preparation for and navigation of the challenge was evident during interview 2 and as such may be an important process which enabled the young athletes to successfully navigate the challenge.

7.3.4. Navigating the Challenge Experience

During interview 2, young athletes reflected on the *individuality of the challenge* experience. The most difficult challenge for YA2 was identified as training monotony in their sport of swimming. For example, YA2 identified a lack of competition in their training and expressed a need to experience a more challenging training environment: “If training isn’t tough, if it is more technical or tactical work then I struggle to really focus in. I can see how it helps other swimmers, but I don’t really feel the benefit” (YA2). During interview 2, coach 3 utilised their own experiences in the sport of swimming to fuel the external motivation of their young athlete and enhance the athlete’s engagement in the training process. Reflecting this, coach 3 stated, “I have just tried to go on past experiences as an athlete myself. I know what they thrive on, swimming fast at the biggest meets. I’m going to try to focus their attention on that, use that as the bait to drive their training”. Coach 3 reflected on the impact of *the challenge environment* in the context of the young athlete’s navigation of their most difficult challenge and the young athletes desire to test themselves against higher level swimmers: “It’s a competitive thing for them (the challenge environment), to step up and race people that are faster than them. They think that’s not a big enough challenge for them or doesn’t want to be beaten by their peers but happy to be beaten by older swimmers” (Coach 3). It seems evident then, that the experience of the young athlete navigating their most difficult challenge stimulated their coaches to consider the effectiveness of their coaching actions and environments. In the case of YA2, the coach focused on the young athlete’s external motives.

During interview 2, coach 3 identified the overwhelming nature of *the challenge environment* for YA1 at summer national championships. Coach 3 recognised the impact of the high-performance standards at the championships on the performances of YA1: “Their times were good, but they struggled with anxiety at the meet, that definitely crept back in that environment. The standard of swimming was high, that threw them. That’s the ups and downs

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they are on now at big competitions". YA1 reflected on the *social support from coaches* that they received to help guide them through the challenge experience. More specifically, YA1 identified the non-technical coaching support they received from coach 1 and how this provided an opportunity to escape the demands of the competition environment stating:

We don't always talk about swimming though. Sometimes it's nice to talk about other stuff and take you mind of how hard it all is (high level competition). We talk about football or whatever is in the news. That's good for me because swimming is a quite intense sport, it's nice to step away and switch off even in the water

In addition to social support from coaches, participants also referenced the *social support from family, friends, and teachers* that aided the young athlete's navigation of the challenge experience. For example, during interview 2 coach 3 reflected on the social support that YA1 received from their parents and how the relationship between coach, athlete and parent allowed for clear and candid communication: "Their parents have been supportive 100%. The athletic triangle is as open and honest as possible. I try to share as much detail as possible and they are fully supportive". The role of the coach and the young athlete's closest support network seems important in supporting the young athlete to navigate their most difficult challenge by providing holistic support for the young athlete.

During interview 2, young athletes reflected on the *individuality of the challenge* that they experienced. In doing so, YA8 outlined the specificity of their swimming training and the direct correspondence to improving their performance in the water. This was important for YA8 given their challenge of achieving international selection criteria in their sport: "There was more focus on how my training would affect my performance, so like being really specific with my sprint training and particularly around my start and break out because on the short events that makes a big difference" (YA8). In addition, YA8 also recognised the importance of

social support from family, friends, and teachers. YA8 reflected on the positive affirmation they received from their friends and the support that their friends provided away from the swimming pool as they stated, “When I go home it’s nice for my swim friends at home to say how much I’ve improved. My friends who don’t swim, always say well done and stuff. It’s nice for them to recognise my swimming, but it’s also nice that we can talk about stuff away from swimming”. Therefore, the balance between specific and focused approaches to sports training and the supportive and comforting approach of the young athlete’s social support network may provide an optimal mix of technical and non-technical support to navigate the most difficult challenge.

7.3.5. The Complexities of the Challenge Experience

During interview 2, young athletes reflected on *the highs and lows of the challenge* experience. YA5 recalled the impact of their injury on their swimming performance at national level training camps and portrayed their contrasting performance levels at training camps from one year to the next:

After the first year when I did a number of camps working on core skills and technique, I felt I was able to use those new skills more in training and racing and got some big PBs at some big meets so that was really good. The next year I was only able to do 1 out of the 2 camps because I was injured. That was quite a low for me particularly after doing so well from the camps the year before (YA5)

YA5 also reflected on performance expectations at national level competition against their actual performance level in competition. In this sense, YA5 contrasted the highs and lows of their experience during their severe injury: “Even though I had my injury previously I think because I wasn’t even expecting to like go to nationals and then I made it and I made finals and I kept on hitting fast times at nationals, I’d never actually done that before, so, I achieved the

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goals I set out to achieve which is nice.” (YA5). Such contrasting experience of the most difficult challenge was also recognised by coach 4 during interview 2. Coach 4 reflected on the rapid development YA5 had made prior to their injury and the impact of the injury on their development: “There seemed to be no stopping them until they picked up this knee injury. Because they have just been improving and improving all the way through, it must have been so tough for them to pick up that injury and for the injury to be so severe.” (Coach 4). This highlights a potential dichotomy of emotions associated to most difficult challenge for young athletes through which the young athlete may have to navigate contrasting emotional states associated to the experience of the challenge i.e., emotional highs and emotional lows.

During interview 2, young athletes reflected on the *step up in expectations* that they experienced through their most difficult challenge. Reflecting on the transition to a high level of competition, YA6 identified the step up in performance level from national to international golf: “I think it’s because it’s so high quality, the golf, that you just downgrade yourself and you just don’t think you’re as good as them. The GBNI (Great Britain and Northern Ireland) players and that level aren’t great. When you get to the Europe people, they’re really tough to beat. It’s a big step up, they’re really good.” (YA6). During interview 2, coach 2 also reflected on the higher expectations being placed on YA6. Through previous competition success and associated parental demands, coach 2 recognised the increased pressure being placed on the young athlete: “All of a sudden in 2018 they were making a name for themselves and won northern championships and started to get noticed and parents thought they are quite good at this game and so basically they have had more pressure put on themselves and people were expecting them to push forward with their golf.” (Coach 2). Indeed, during interview 2, coach 2 reflected on the expectation for YA6 to reproduce a high level of performance on the international stage based their capability to perform at this level of competition: “The challenge will come for them now that they have produced some good results and shown what they are

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capable of. There will be some pressure on them to replicate that again and again and on the international stage.” (Coach 2). Therefore, the most difficult challenge experience can provide a challenging stimulus for the young athlete across technical, tactical, physical and psychological domains which may require an enhanced and upregulated response from the youth athlete within one or more of these areas. The nature of the response (e.g., physical development or psychological development or technical development) may be dependent on the prerequisite skills and experiences the young athlete brings to the challenge experience.

During interview 2, young athletes reflected on the progress they have made in relative to their most difficult challenge and in doing so expressed *a focus on long term development*. There was a sense that the challenge experience remained in context of future challenges on the talent pathway for the young athlete: “I wasn’t really that nervous or anxious because I was thinking I’ve already achieved a lot this year. So, I should be happy with how I’ve done, but I also wanted to get better and perform well at summer nationals.” (YA1). During interview 2, coach 3 reflected on the *highs and the lows of the challenge* experience for YA1. Coaches on the talent pathway may be well positioned to contextualise the ups and downs of the challenge experience for the youth athletes. This was the case for YA1, with coach 3 reflecting on the challenge that had been experienced and the impact on the young athletes swimming performances: “I just had to keep reminding them of what they had been through and how early on they were with their return to the pool. Their high aspirations are wonderful, but sometimes they just need that reality check. That honest conversation was the way to go”. During interview 2, coach 3 also reflected on the broader developmental journey of YA1. As referenced previously, the individual experience of the challenge and therefore the individual support required by young athletes to navigate their challenge experience seems important: “You can only do your best as a coach to support the individual’s development. It needs to be all about the individual, all the focus on supporting them as best as possible throughout their journey”

(Coach 3). The coach's ability to gain perspective on the individualised nature of challenging experiences and the coach's delivery of a supportive and developmental approach seems important to optimise the young athlete's experience of and through the challenge.

7.3.6. Lessons learned: reflections on the challenge

During interview 2, young athletes reflected on their experiences of *adapting to the challenge* of higher-level competition. YA7 reflected on their journey of transitioning to international competition in their sport of field hockey and their sporting development throughout the season: “Most players get selected on to the national age groups and play well then some drop off. I felt my start was poor, I was really nervous and struggled to play well, then once I settled down and got used to it, I think I improved a lot across the season at that level” (YA7). Indeed, coach 1 reflected on their experience of supporting YA7 through their transition to higher competition levels. During interview 2, coach 1 reflected on how YA7 needed to adapt to the challenge experience and execute specific technical skills to enhance the team performance:

They have some physical gifts around their speed and agility that got them noticed and picked at an international level, but since then they have found it tough because maybe they don't have the hockey skills to complete at that level. Just being quick won't allow them to progress much further. They have to be able to hold onto possession better and contribute more to the team

Coach 1 reflected further during interview 2 on the *realities of the challenge* of competing at international level for YA7. Coach 2 highlighted the young athlete's key development areas (i.e., technical development and contribution to the team performance) stating, “When they say they find it too difficult, actually they are playing at that level a year young and so it's no surprise given their limited hockey skills that it becomes a struggle” (Coach 2). Both the coach

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and young athlete identified the overload in performance demands through the most difficult challenge experience. The coach, in this scenario, was clearly able to identify a series of potential solutions (technical and tactical) that may aid YA7 to better navigate similar future challenges.

During interview 2, young athletes reflected on their *personal investment in development* through their most difficult challenge experience. In doing so, YA3 reflected on their investment in their field hockey commitments alongside their academic commitments:

When all the schoolwork piled up, you still have all the training as well, it was tough. There was just so much going on, club hockey, national cup games for school, England competitions and camps. I had to commit myself to it all. Getting through those stages though pays off in the end.

In relation to *adapting to the challenge*, coach 1 reflected on how YA3 was able to adjust their academic commitments to benefit their sporting development. During interview 2 coach 1 cited the positive impact of an adjustment to the academic workload of YA3 and the ability of this young athlete to navigate their challenge experience:

There is a real demand on their time in all areas of the school. The fact that they were able to drop a GCSE then really helped them with their time management, took the stress off parts of their schedule, giving them space for work and play and I would image that has been much less stressful for them.

Therefore, the personal investment of the young athletes to their most difficult challenge experience, combined with interventions applied to the challenge by supportive stakeholders seemed to aid the young athletes in optimising their sporting performance through the challenge experience.

During interview 2, YA5 reflected on the realities of navigating a severe injury and particularly, their *personal investment in development* through this challenging experience. For example, YA5 continued to attend national training camps despite not being able to swim due to injury. Highlighting their investment in their development YA5 stated, “I wasn’t really sure what was happening with the injury. I wanted to still try and impress (the coaches), but I was thinking of not going to the national camps. I still went though. I was at that camp all day, because sometimes it’s just about being there and showing persistence”. Indeed, on returning to swimming following their injury, YA5 reflected on their investment in the training process. For example, YA5 stated, “I was only PB +3 (3 seconds over personal best) which gave me lots of encouragement to get back into hard training. I did a few quick races and got some freestyle PBs (personal bests), and I felt my curve was going up. I just trained so hard, each session, giving it everything”. This continued personal investment into the challenge experience by the young athletes was recognised by their coaches during interview 2. For example, coach 4 reflected on the investment made by YA5 despite not being able to actively participate in their sport. Coach 4 recalled their positive contribution to the national camps as they stated, “When they were unable to swim fully, they would help me coach sessions. I would ask them to keep a check on certain swimmers, the technical cues I was giving out and the rest periods. It was very helpful for them to stay connected with me and the other swimmers”. In this sense, the young athlete’s persistence in navigating the challenge experiences seems important with the potential to aid in the young athlete’s development through the challenge experience.

7.4. Discussion

Young athletes are being recruited onto talent pathways at an increasingly younger age (Baker et al., 2018) and research suggests that successful talent development is characterised by the navigation of a range of developmental challenges (Collins & MacNamara, 2012,

Collins et al., 2016, Taylor & Collins, 2021). Reflecting the importance of understanding these experiences to support the development of young athletes (Chapter 2), the purpose of this study was to examine how young athletes *and* their coaches experienced the most difficult challenges (as self-identified by the young athletes). The experiences of both sets of participants were captured at a point on the talent pathway where the young athletes were displaying a high amount of deliberate practice, a low amount of deliberate play and a focus on one sport. More specifically, I aimed to:

1. Explore what young athletes and their coaches forecast prior to the young athlete experiencing their most difficult challenge.
2. Explore what young athletes and their coaches reflected on after the young athlete had experienced their most difficult challenge (5 months later).

7.4.1. Forecasting and Reflecting on the Experience of the Challenge

‘Most difficult’ is a relative and an often individually constructed and context dependant term. In this sense, proactive coping, which can be taught (e.g., Greenglass & Fiksebaum, 2009) or learnt skills (e.g., Rosenbaum, 1983), may be crucial in determining an individual’s interpretation of an event. What was clear from the data and linked to the literature on post traumatic growth (Joseph & Linley, 2005; Tedeschi & Calhoun, 2004), is that benefiting from challenge appears to occur because of emotional disruption and therefore experiencing something as challenging appears to be more important than the actual event (Savage et al., 2016). This study provides insight into what skills and experiences can be developed a priori to enhance young athlete’s ability navigate, cope with, and learn from a developmental challenge (i.e., a broad perception of the challenge to be encountered and the skill to forecast more specifically what lay ahead for challenge experience). The concept of *pre-traumatic* growth is also important to consider here whereby participants were interviewed

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prior to their challenge experience. Relative to definition of post traumatic growth provided by Tedeschi and Calhoun (2004), the concept of pre traumatic growth can be conceptualised as a change in people that goes beyond an ability to resist and not be damaged by highly stressful circumstance prior to the circumstances occurring. In this sense and as noted by Savage (2019) in relation to post traumatic growth, the individual can utilise the circumstance as an opportunity for development and/or learning. Although circumstances such as challenge and setbacks are often perceived negatively (Neely et al., 2016; Neely et al., 2017), the participants in this study described challenge as part of development on the talent pathway and interpreted it as a learning opportunity. Central to this may have been the athlete's preparation for, and confidence in their ability, to navigate the experience. Researchers have explored the hypothesis that seeking discomfort can be a signal of personal growth and as such can increase motivation in tasks associated to personal development (Woolley & Fishbach, 2022). The theoretical foundations for such findings are associated with the concept of cognitive reappraisal. Cognitive reappraisal has been shown to reduce the emotional impact of negative experiences before these experiences occur (Gross 1989; Gross & Levenson, 1997) and thus the reappraisal process has the capability to allow an individual to redefine discomfort as a more functional and positive construct (Brooks, 2014; Crum, Salovey, & Anchor, 2013). Such considerations should be embraced by talent pathway coaches as they attempt to optimise the development experience of young athletes on the talent pathway. A key feature of cognitive appraisal associated to the results of this study is the consideration of the qualitative and idiosyncratic nature of 'most difficult' challenges. Simply, seeking to quantify how much challenge is "too much" and how much is "too little" fails to consider the individual athlete's interpretation of the experience. Instead, coaches should consider the relative difficulty and meaningfulness (i.e., the functional and positive aspect of the experience) of bespoke and developmental challenges as the key feature. Consideration by talent pathway coaches of the

‘sweet spot’ of emotional disruption, via difficult challenges, may support more optimal forecasting and increase the potential for learning by the young athlete through the challenge experience.

Previous literature has called for athletes to actively engage with challenging experiences to support the development of their performance level in sport. For example, research has called for performers to embrace challenging experiences head on (Collins & MacNamara, 2012) and that challenge should be a regular feature of the development diet in order to aid performance development (Bull, Shambrook, James, & Brooks, 2005; Collins & MacNamara, 2012; Crust & Clough, 2011; Park, 1999; Savage, 2019; Tedeschi et al., 1998; Wadey et al., 2020). Through the process of forecasting the most difficult challenge experience, participants in this study utilised previous experiences on the talent pathway and their understanding of the challenge to prepare to navigate the challenge experience. Indeed, participants forecast their readiness to embrace the experience, akin to tackling the challenge ‘head on’ as previously suggested (Collins & MacNamara, 2012). As such, talent pathway coaches should be cognisant of the deliberate preparation of young athletes for challenging experiences on the talent pathway. The use of more minor and/or less difficult challenging experiences could be used as opportunities to teach young athletes to forecast how they may frame and navigate the experience as an opportunity for personal development. Indeed, and given the perceived individuality of the challenge experience by participants in this study, talent pathway coaches should deploy decision-making skills to position future challenge experiences at a level equivalent to a young athletes’ readiness to engage in the experience. This could include consideration of how the athlete engaged in previous challenges, why they engaged in that way and what alternative strategies could be used to support the athlete to engage in potentially more challenging experiences.

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In the second phase of interviewing, participants were asked to reflect on the lessons learnt through the experience of their most difficult challenge. Interestingly, the post-traumatic growth literature suggests that post-event interventions help people learn from and counter the negatives of the challenge (Wadey et al., 2020). This has been shown to be essential to accrue the benefits from that experience (Calhoun & Tedeschi, 2006, Savage et al., 2016; Wadey et al., 2020). The results from this study suggest that participants utilised psychobehavioural skills, such as goal setting, to support their reflections of the young athlete's most difficult challenge. Furthermore, participants identified the impact of the challenge environment and the social support that was provided to aid in the navigation of the experience. Participants also reflected on the complexities of the challenge experience and the lessons learnt through the experience. The developmental impact of navigating challenging experiences has been explored recently by authors in rugby league. Taylor and Collins (2021) found athletes, on a professional academy pathway, who were able to cope and learn from significant emotional disturbances in their transitions from junior to senior to professional rugby league reported emotional disruption as critical and impactful for their development. Such findings, alongside those presented in this study, emphasise the need for talent pathway coaches to instigate and support the development of a full range of experiences for youth athletes to navigate on the talent pathway. In this sense, challenging experiences should be taxing enough to warrant the young athlete to apply reflection skills to review the navigation of the experience (Abraham & Collins, 2011; Bjorndal & Ronglan, 2018; Collins & MacNamara, 2017). In addition, challenging experiences may be fully utilised for development by the young athlete through the application of psychobehavioural skills and the use of social support. The application of these skills and support to the experience may enhance the young athlete's preparedness for future and more difficult challenges on the talent pathway.

7.4.2. Emotional Preparation for Challenging Experiences

The finding of this study highlights the importance of engaging young athletes and their coaches in forecasting and reflecting on difficult challenges on the talent pathway. The relevance of such processes may lay in the value of experiences with strong emotional valence. (Keins & Larsen, 2021; Taylor & Collins, 2021). Such realities may be constructed through a detailed knowledge of the bespoke experiences of young athletes as they navigate the challenge (i.e., the uniqueness of the challenge experience and the impact on the individual) and critically, consideration of how these factors interact to form a challenge experience (i.e., the complexity of the experience and the personal investment in the experience). Coaches, therefore, should be encouraged to support young athletes to navigate challenge experiences that may have negative emotional valence (akin to most difficult challenges as per those presented in this study – severe injury or high workload across multiple domains for example). Research suggests such emotional experiences can, when balanced against a balanced diet of experiences, support impactful reflexive and analytical processing (Blanchette, 2006; McEwan & Sapolsky, 1995; Taylor & Collins, 2020). The findings of this study suggest that young athletes, at the point of transition into the investment phase of a talent pathway, may be able to exploit the developmental benefits of the pre- and post-challenge experience through forecasting and reflection processes. Indeed, this study went further to triangulate the experiences of young athletes with their coaching practitioners, providing an enhanced validity to the forecasting and reflections on the most difficult challenges (e.g., the application of psychobehavioural skills in practice and working through the challenge experience). In practical terms, considerations by coaches on the appropriate actions needed to navigate the challenges should be based on the preparedness of the young athlete (i.e., athletes' forecasting skills, support for the challenge) and long term aims (i.e., preparation for future, more challenging experiences) of the young athlete (Rongen et al., 2021). Research has suggested

such decision making within coaching is underpinned by the knowledge of why an action(s) should take place through a broader understanding of the multifaceted demands of the situation (Abraham, Collins, & Martindale, 2006; Winters & Collins, 2015). Such knowledge and understanding enables coaches to deploy an appropriate set of actions relative to the needs of the coaching context (Collins et al., 2016).

In addition, coaches' own capability to encourage, review, challenge, and progress young athletes through challenging experiences may be critical (Taylor & Collins, 2020). Thus, in this context of this study, talent pathway coaches should develop an operational plan for utilising the challenge as a catalyst for development. Reflecting the long-term agenda of talent development, this plan should contribute to the long-term development of the young athlete, allowing for a review of the strategic benefit of the experience to the young athlete on the talent pathway and the emotional preparation of the young athlete for the experience. In doing so, talent pathway coaches should apply nested decision making (Abraham & Collins, 2011). This approach connects naturalistic decisions (i.e., in the moment) in the context of goals that have longer term aims for the athlete (i.e., future success). Pragmatically, this may provide the opportunity for coaches to deploy and plan a blend of challenges over time and focus the young athlete's attention on the experience of the challenge.

Notwithstanding these findings, there are limitations to this study. The risk of self-preservation bias by participants may exist given the personal nature of forecasting and reflecting on the challenging experiences. In addition, personal networks through talent pathways in sport were utilised to recruit participants for the study. Thus, the relationship between participant and interviewer may have impacted the degree to which participant's felt they were able to disclose their forecasting and reflections of the most difficult challenge experience. However, the experiences of the young athletes were triangulated with the experiences of their coaches to validate the recall from both sets of participants. Future research

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could go further to triangulate young athletes' experiences with their coaches and additional significant others (i.e., parents, friends, teachers) given the importance of the young athletes' social support network as reported in this study. In addition, future research on challenge on the talent pathway may benefit from exploring joint challenge experiences that young athletes and coaches establish together, as well as how coaches support multiple young athletes in navigating their challenge experiences. With regards to the interview process, there is a risk that the coaches second interviews were impacted by hearing the young athletes most difficult challenge in the first interview. This information may have influenced the coaches' approach to supporting the young athletes to navigate their challenge experience. With regards the experience of the challenge for the participants, future research on the topic of challenge on the talent pathway in youth sport could explore, in a more structured fashion, potential moderators of the challenge experience for young athletes. Moderators may include, for example, experience in the sport, the type of sporting activity, the performance record of the young athlete and the athlete's injury history. Such moderators may give greater insight into the experiences of the young athlete leading up to the challenge experience and may provide a rich insight into a young athletes pathway and/or sporting history if utilised as part of a longitudinal investigation. Given the call for longitudinal research in the field of talent development, future work in this area may benefit from exploring young athletes' experiences of navigating of difficult challenges over an extended period (e.g., year on year and beyond the investment years on the talent pathway). The addition of reflective journaling by participants in the 5-month period between interviews may have enhanced the recall by participants during interview 2, contributing to the quality and accuracy of the analysis (Vicary, Young, & Hicks, 2017). Finally, the participants for this study were recruited from talent pathways in the United Kingdom, across five different sports. Therefore, the findings presented are only represented of this demographic and talent pathways in the UK. More research is needed to extrapolate

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such findings into talent pathways in other countries and to potentially explore the specificity of the challenge experience in particular sports by recruiting participants from the same sport.

Considering the challenges of forecasting adverse life experiences (Peeters, Rainbird, Lorimer, Dobson, & Mishra, 2017), talent pathway coaches may be wise to explore the clarity with which young athlete's forecast challenging experiences. In doing so, these coaches may go some way to enhancing the process of preparing young athletes for what may lay ahead on the pathway and more specifically, the scale, nature, anticipation of and confidence for the challenge experience. By immediately reflecting on their experience of their most difficult challenges, this study also provides insight into the psychobehavioural skills, support networks and outcomes of reflective processes that currently young athletes utilised to navigate their most difficult challenge. It is hoped this study provides a pragmatic insight and broader understanding of the multifaceted nature of navigating difficult challenge experiences and goes some way to help coaching practitioners support young athletes to make sense of the challenges they will experience on their talent pathway journey.

Chapter 8: General Discussion

8.1. Introduction

Given the rise in professionalism of talent pathways in sport, and a rapidly expanding literature base exploring the youth athlete's journey on and beyond talent pathways (see Chapter 2), several key constructs seem important to better understand how we can optimise the potential of all youth athletes in this context. Notably, and with reference to Chapter 2, these constructs include the influence of developmental experiences through sport on a talent pathway, the impact of challenging experiences on youth athletes, the impact of developing and implementing skills to navigate challenging experiences and the role of the talent pathway coach in facilitating and supporting youth athlete development. As an applied practitioner working within the field of talent development, it is vital for me to better understand how to optimise the developmental potential of all youth athletes and support them to navigate challenging experiences on the talent pathway. Acknowledging the need for further exploration on this topic area, as identified in Chapter 2, the aims of this thesis as stated in Chapter 1 were:

1. To explore the influence of talent pathway experiences on life post deselection from the talent pathway.
2. To explore the coaching philosophies of ex-talent pathway athletes and the extent to which their philosophies were attributed to their pathway experience.
3. To explore what difficult challenges young athletes experience on the talent pathway and how they navigate these challenges.
4. To explore the forecasting and reflection processes utilised by young athletes and their coaches in the navigation of challenges on the talent pathway.

This chapter summarises the results of Chapters 4, 5, 6, and 7 and does so based on the pragmatic research philosophy and methodology utilised in this thesis. As such, this chapter aims to provide practical solutions for coaching stakeholders to utilise with youth athletes to maximise the influence of developmental experiences on the talent pathway, as well as providing implications for the research literature on developmental experiences on the talent pathway.

8.2. Implications for the Research Literature

In Chapter 1, I outlined the aims of this thesis which were orientated around the influence of the talent pathway on deselected athletes, to explore the coaching philosophies of ex-talent pathway athletes and explore what difficult challenges were experienced on the talent pathway, how these challenges were navigated and the utilisation of forecasting and reflection by youth athletes and their coaches in navigating challenging experiences. Against the body literature recognising the distressing and emotional outcome of deselection from talent pathways in sport (Neely et al., 2016; Neely et al., 2017), and in line with objective 1, Chapter 4 found that the talent pathway in sport can act as a rich development opportunity for youth athletes who do not transition to senior professional sport. This extends the deselection research in youth sport as identified above by considering deselection on the talent pathway as a process and one that has the potential to support future success for the deselected individuals. Indeed, the findings of Chapter 4 support the connotation that intentional and skilfully developed early experiences on the talent pathway can support youth athletes in transitioning to a life beyond sport. Again, this presents an alternative perspective on the process of deselection on the talent pathway which has previously explored why talented youth athletes do not make the transition to senior professional sport (Rothwell et al., 2018; Taylor and Collins, 2019).

As outlined in Chapter 1, objective 2 of this thesis was to understand the meaning and purpose of talent pathway coaches coaching philosophies based on their experiences as a talent pathway athlete. To date, and as acknowledged in Chapter 5, research into the journey of athlete to coach has been focused on elite senior athletes' transitioning into elite senior sport coaching positions (Blackett, Evans, & Piggott, 2018; Chroni, Pettersen, & Dieffenbach, 2020). Considering this, and the low probability of youth athletes 'making it' to professional sport as identified in Chapter 1, the findings of Chapter 5 show how experiences on the talent pathway as a youth athlete can impact the meaning and purpose of coaching on the talent pathway. Specifically, the talent pathway coaches recognised the skills and experiences they acquired on the talent pathway despite being deselected prior to signing a professional contract, enabled the coaches to focus on supporting the personal growth of the youth athletes they now coach. Despite a body of literature promoting the development, deployment, and transferability of skills and experiences fostered in youth sport (Collins et al., 2016; Hill, 2016; MacNamara et al., 2010a, 2010b; Savage et al., 2016), little attention has been paid on how ex-talent pathway athletes utilise such skills and experiences beyond the transition to professional sport. The findings provided in Chapter 5 provides a novel insight to the transfer and deployment of the skills and experiences developed on the talent pathway and deployed to influence the meaning and purpose of talent pathway coaches.

A key feature of objective 2 was to explore the coaching philosophies of talent pathway coaches. As identified in Chapter 2, one of the central tenants of a coach's philosophy is epistemology (Cushion & Partington, 2016). Whilst Callary (2021) acknowledges an emphasis on coaching research orientated around knowledge and the outcomes of coaching, Chapter 5 provides a more nuanced insight into the influence of a coaches epistemology based on their experiences as a youth athlete. Notably, participant's experiences were as deselected talent pathway athletes. Chapter 5 reported that talent pathway coaches have beliefs and implemented

practices to emphasise development outcomes beyond winning and professional sport, where by the personal development of talent pathway athletes was at the forefront of the coaches rationale. Participants also reported the influence of their rationale for coaching on their coaching methodology and coaching content. Given the call for collective harmony in the personal and life skill development of youth athletes through sport (Camiré & Santos, 2019) and the promotion of ‘future ready’ athletes through talent pathways in sport (Blake & Solberg, 2023), researching the way in which talent pathway athletes can be proactively prepared for careers beyond professional sport (e.g., careers as coaches) may be valuable. Exploring talent pathway athletes willingness to engage in a coaching journey may aid talent pathways in optimising their range of possible exit routes for athletes at the point of deselection.

Objectives 3 and 4, as outlined in Chapter 1 focused attention of the most difficult challenges identified and experienced by young athletes at the phase of the talent pathway equivalent to the transition from investment to specialisation phase. As identified in Chapter 2, there is a sizeable body of research literature that has explored the role and impact of challenges in sport using retrospective study designs and recall from senior professional athletes (Savage, 2019; Taylor et al., 2022). Recognising the need to explore the experiences of youth athletes currently engaged on talent pathways in sport, Chapters 6 and 7 purposefully sampled participants, who were at the time of interview, transitioning from the investment to specialisation phase of a talent pathway. In contrast to previous retrospective research (Sarkar et al., 2015; Savage et al., 2017; Taylor et al., 2020), Chapter 6 specifically identified that the most difficult challenges experienced by these young athletes were orientated around either individual physical or intrapersonal challenges on the talent pathway. Moreover, such challenges were perceived to be highly individual and thus, interpreted through the eye of the beholder. These findings expand the research literature on challenge in sport by recognising that, for young athletes currently on the talent pathway, the bespoke nature and impact of the

experience may be of critical importance more so than the challenge itself. In addition, whilst Chapter 6 adds to the research literature promoting the deployment of psychobehavioural skills to aid in negotiating challenging experiences (Taylor et al., 2022), the chapter goes further to propose positive change reported by the young athletes through the navigation of the challenge experience. Reported positive change aligns to the work of Wadey et al. (2020) related to growth following adversity in that the young athletes reported being prepared for future challenges and acknowledged the contribution of a range of social support to navigate their challenges.

Extending the findings presented in Chapter 6, Chapter 7 aimed to satisfy objectives 5 and 6 by exploring what young athletes and their coaches forecast and reflected on to navigate the young athletes most difficult challenge experiences. Previous research literature has promoted the contention that challenge should be regular occurrence in the development and growth of athletes (Collins & MacNamara 2012; Sarkar et al., 2015; Savage 2019), with post traumatic growth referenced as the theoretical foundation for such development. However, and as referenced in Chapters 2 and 7, there is a paucity of research exploring the concept of pre traumatic growth in sport. As such, the findings of Chapter 7 add to the body of literature on challenge in sport by suggesting that youth athletes can reappraise challenging experiences on the talent pathway as potential growth opportunities by perceiving challenge as part of development and interpreting the challenge as a learning opportunity. In addition, whilst Savage (2019) acknowledged the retrospective recall of challenge as a “...matter of personal interpretation.” (p. 71), the findings of Chapter 7 suggest the young athlete’s interpretation of up-and-coming challenge via way of forecasting is also a matter of individual interpretation more so than the difficulty of the challenge itself. Following the second round of interviews in the study in Chapter 7, young athletes, and their coaches, recognised a triad of mechanisms utilised by the young athletes to aid in navigating their most difficult challenge on the talent

pathway; the application of psychobehavioural skills, the impact of the challenge environment and social support. Whilst the importance and influence of psychological skills has commonly been recognised as a critical mechanism by which to aid the navigation of challenging experiences in sport (Collins & MacNamara, 2012; Collins et al., 2016), this chapter extends the range of mechanisms that may facilitate the navigation of challenges by young athletes on the talent pathway. The chapter, therefore, acknowledges the complexity associated to young athletes engaging in and reflecting on challenging experiences given the potential lack of prior experience of such experiences on the talent pathway. Finally, and as referenced above, Chapter 7 utilised the triangulation of experiences from both young athletes and their talent pathway coaches. Previous research on challenge in sport has called for the triangulation of the perceptions of challenging experiences with a range of social stakeholders invested in athlete's development. Whilst prior research on challenge in senior athletes have purely focused on the athlete's perspective, the methodology and findings of Chapter 7 extend the research in this area via the use of triangulation. As referenced in Chapter 3, triangulation as a methodology has been suggested to aid in enhancing the accuracy and trustworthiness of research and support in overcoming potential bias in reporting compared to a single participant research method.

8.3. Implications for Coaching Practice on the Talent Pathway

Given the pragmatic research philosophy employed in this thesis and the desire to provide practical recommendations to optimising developmental experiences as identified through objective 7 in Chapter 1, I have structured this section on the implications of the thesis for coaching practices in a pragmatic fashion. The implications are set in the context of the teach – test – tweak – repeat (TTTR) approach as proposed by Collins et al. (2016) in their research paper exploring a skills-based approach to the development on the talent pathway in sport. Adapted to the findings of this thesis, the implications for coaching practice on the talent

pathway will be set in the context of teach – challenge – tweak – repeat (TCTR) instead of TTTR.

Teach

Chapters 4, 5, and 7 outline a range of psychobehavioural skills that were reported by participants as being advantageous and contributing positively to their development on the talent pathway, regardless of the outcome of the youth athlete's pathway journey (i.e., Chapter 4). Therefore, one approach that coaches may is to deliberately teach psychobehavioural skills for youth athletes irrespective of the youth athlete's likelihood to achieve senior professional status. In this sense, a deliberately developmental approach may be appropriate, akin to the approach taken by deliberately developmental organisations as outlined in Chapter 2. An approach of this nature would embrace the multidimensional growth of individuals as a key motivator with the development of the youth athlete, beyond sport specific attributes, acting as a success marker. Therefore, it may be wise to consider the development of a curriculum to guide the teaching of psychobehavioural skills to support the youth athlete on the talent pathway. It may be timely at this point to acknowledge the range of definitions presented in educational literature for the term curriculum. For example, Kelly (2009) defines the curriculum as, "...the totality of the experiences the pupil has as a result of the provision made." (p. 8). The definition by Kelly (2009) encompasses the intentions of the planners, the experiences of the learner, the procedures adopted by the teacher, and the 'hidden' learning that may take place because of the curriculum experiences. More recently, Grant (2018) suggests a curriculum, "...presents a reasoned picture of the subject to be studied and defines the teaching process, learning process, and intended outcomes..." (p. 72). The definition provided by Grant (2018) focuses more specifically on the formal and explicit intentions of the planners and procedures adopted by the teachers. It is beyond the scope of this thesis to present an example of a curriculum representing the totality of the experiences of the learner as per the

definition of Kelly (2009). As such and applying Grant's (2018) definition of a curriculum to the findings in chapters 4, 5, 6, and 7, I have presented examples of how the teaching and learning process and intended outcomes may relate to several of the psychobehavioural skills (see table 8.1) referenced in the findings of this thesis. What may be important to acknowledge at this point, however, is that coaches should be encouraged to not to settle on a curriculum as either planned, as per table 8.1, or lived, as per the definition by Kelly (2009). Instead, coaches should be encouraged to use the totality of their athletes experiences to inform and optimise the coaching and learning processes and intended outcomes and vice versa (Kelly, 2009).

Table 8.1. An Example Curriculum as Defined by Grant (2018) for the Development of Psychobehavioural Skills Based on the Findings of this Thesis

Teaching Process	Learning Process	Intended Outcome(s)	Outcome of the Use of Skills
To recognise the domains in which the young athlete operates (i.e., academic, sport, social) and be aware of the volume/intensity of activity in each domain	To design an in season micro cycle with appropriate time allocated to various domains including academic, sporting, and social	To be able to identify commitments across domains within a micro cycle and allocate suitable time to each domain	Time Management
To understand that sacrifices are likely to be made and difference sacrifices are likely to occur across different domains through the course of the year	To rank each domain (i.e., academic, sport, social) based on its importance at a specific point in time across a pre-, in-, and off-season	To be able to identify when a sacrifice is required and which domain is required to be sacrificed (i.e., social, sporting, academic)	Making Sacrifices
To understand the benefit of designing goals which are specific, measurable, attainable, realistic and time bound and how goal setting may change across the season	To identify a goal for a pre-, in- and off-season and provide specific, measurable, attainable, realistic and time bound information related to each goal	To set goals which are specific, measurable, attainable, realistic and time bound for different phases of the season	Goal Setting

A deliberately developmental teaching approach to support the preparation of youth athletes for difficult challenges on the talent pathway may also be warranted given the findings presented in Chapters 6 and 7. One solution here may be to teach youth athletes to forecast

their navigation of challenges that may lay ahead on the talent pathway. For example, and as per a challenge identified in Chapter 6, forecasting for severe physical injury may result in the youth athlete identifying a significant period of time out from training and competition in their sport. This time period could be forecast to be utilised for:

1. Developing tactical knowledge of the sport through video analysis with the support of the performance analysis team.
2. Developing physical attributes around the limitations of the injury with support of the strength and conditioning and medical team.
3. Volunteering to coach a local junior team to gain coaching experience in preparation for an entry level coaching qualification.

Notably, it is suggested in Chapter 6 that coaches consider a systemic approach to teaching youth athletes to forecast challenging experiences based on the individual level of preparedness and long-term development aims of the youth athlete. As such and in the context of example one outlined above, the youth athlete would require the prerequisite video analysis software skills to be competent and confident in accessing the video footage and the development of tactical knowledge would have been identified as a long-term aim for the youth athlete. Given the various domains of sport science (i.e., performance analysis, physiotherapy, and strength and conditioning) highlighted in the examples above, coaches on the talent pathway should be cognisant of supporting and encouraging a range of talent pathway practitioners to teach psychobehavioural and forecasting skills within their scope of practice. Learning from the perspectives of coaches on the talent pathway, as per the work of Moodie, Taylor, and Collins, (2023), the wider sport science practitioner group could optimise the development of skills in youth athletes, such as psychobehavioural skills, through the appropriate orchestration the

environment, nested decision making and the concurrent development of training objectives based on individual need and circumstances.

Challenge

Following the teaching process, coaches on the talent pathway should provide youth athletes with the opportunities to deploy the skills that have been taught. As identified in Chapter 6, the most difficult challenges that youth athletes reported on the talent pathway were, in the most part, challenges that could be constructed by their coaches, e.g., physical, and intrapersonal challenges. In addition, and as outlined in Chapter 7, coaches should also be cognisant of each youth athlete's:

1. Perception of the scale of the challenge.
2. Perception of the nature of the challenge.
3. Anticipation for the challenge.
4. Confidence of the challenge.

In this sense, uniform approaches to the design of challenge on the talent pathway may be ineffective as the findings of this thesis suggest challenge was interpreted through the eye of the beholder. For example, an individual understanding of the youth athletes forecasting of challenging experiences based on features one to four outlined above should be established prior to challenging what has been previously taught. This process may enhance the potential for the coach to optimise the design of the challenge process and ensure a greater focus is applied to optimising the youth athlete's personal experience of the challenge. To complement the teaching phase outlined previously, coaches may be wise to teach the development of forecasting skills through challenges perceived to be more minor and/or less difficult by youth athletes given the significance of the individual interpretation of challenges experiences as

identified in Chapter 7. In this sense, coaches could develop a plan and then deploy a blend of challenges over a period to review the interpretation of the experience, i.e., too little a challenge and the experience may not be impactful, too big a challenge and the experience may be overwhelming. As identified in Chapter 7, this process may be optimised by challenges that youth athletes interpret as having negative emotional valence due to the important implications this may have on youth athletes applying reflection and analytical processes to navigate these experiences.

Tweak

Following the teaching and challenge phase, Collins et al. (2016) propose ‘tweaking’ the learning and assessment process based on the success or failure of the previous phases. In this sense, the tweak phase of TCTR would be akin to the transition between reflective observation and abstract conceptualisations phases of the Kolb Cycle (Kolb, 1984) through which inconsistencies between understanding and experience can be addressed and modifications to teaching or new learning opportunities can be developed. With regards to the findings of this thesis and as acknowledged in Chapter 5, coaches should be encouraged to scaffold discussions with youth athletes about their lived experiences as an athlete on the talent pathway. In many ways and given the low probability of youth athletes ‘making it’ to professional sport as identified in Chapter 1, these discussions should be orientated on the value of developmental experiences on the talent pathway. Specifically, coaches should explore the transferable skills youth athletes have learnt and how these skills may transfer in and beyond the domain of sport. Of note here and considering objective 2 in Chapter 1, talent pathway coaches should be tasked to critically reflect on the meaning and purpose of their own coaching on the talent pathway to aid in the scaffolding of discussion with youth athletes. Through this reflection process and given the findings presented in Chapter 5, it may be timely for coaches to consider how the meaning and purpose of their coaching practice facilitates developmental experiences for all

youth athletes and not just the small minority that are perceived to most likely transition to professional sport. This points to the importance of those individuals responsible for the professional development of coaches within a talent pathway to purposefully facilitate reflection for talent pathway coaches on their experiences as a youth athlete. Purposeful reflection of this type may aid coaches on the talent pathway to consider the importance of developmental experiences and/or a wider range of psychobehavioural skills in parallel with or even beyond the importance placed on winning and transitioning athletes to professional sport. Considering the findings presented in Chapter 5 and the interview guide for Chapter 5 in Appendix A.6., this reflection process could well be focused on coaches exploring their general experiences of youth sport associated to success and challenge, selection and deselection, commitment to sport and non-sporting activities. In addition, the reflection process could, more specifically, explore experiences that the coaches had and the skills they perceived they developed as youth athletes that have subsequently impacted on the meaning and purpose of their coaching.

Through the ‘tweaking’ phase, talent pathway coaches should also consider on how they stimulate youth athletes to reflect on the teaching and challenge phases. Chapter 6 identifies that talent pathway coaches should play a key role in supporting youth athletes to interpret, deconstruct, and make sense of challenges. As advised in Chapter 6, coaches may achieve this by considering the individual needs, individual interpretation, and perceived scale of the challenge experience for each youth athlete in their care. Given the way in which youth athletes reflected on their most difficult challenges as identified in Chapter 7, coaches may benefit from utilising cognitive reappraisal with their youth athletes. The specific details of cognitive reappraisal have been outlined in Chapter 2. As an emotional regulation strategy, cognitive reappraisal may provide the opportunity for youth athletes to reframe potentially negative experiences into more functional and positive constructs. The process of reappraisal

may be particularly valuable for youth athletes as they transition through the ‘tweaking’ phase of TCTR and into the repeat phase due to the benefits of cognitive reappraisal in moderating stress, negative emotional, and resilience (Riepenhausen et al., 2022).

Repeat

Given the active reflection of coaches and youth athletes proposed in the ‘tweaking’ phase, coaches should now be prepared to repeat the teach and challenge phases with an enhanced sense of what the youth athlete needs to optimise developmental experiences on the talent pathway. As referenced in the teaching phase, these needs should be set in the context of the long-term benefit in and beyond sport for the youth athlete. In this sense, coaches should be sophisticated in their ability to scale up challenges as required, akin to finding a ‘sweet spot’ of emotional disruption for the youth athlete as referenced in Chapter 7. As outlined in Chapter 6 and in parallel to the scaling of challenges for individual athletes, coaches should be active in supporting their youth athletes to regulate their response up or down to the challenge based on the skills, competencies, and experiences being taught and the ‘challenges’ being applied. This nuanced approach to repeated exposure to developmental experiences on the talent pathway should give youth athletes the opportunity to embrace future and more difficult challenge on the talent pathway. Embracing future and more difficult challenges was a critical feature of development identified in Chapter 7 and may be supported by the talent pathway coach’s ability to repeat the teach – challenge – tweak cycle in the most optimum way for each youth athlete. To facilitate the teach – challenge - tweak cycle, coaches may wish to consider the following questions in the repeat phase:

1. How well did the youth athlete engage previously in the teach and challenge phases of TCTR?
2. Why did they engage in that way?

3. What alternative strategies could be used to optimise a youth athlete's development through the process of TCTR?

As per the application of TCTR in this chapter and presented in original introduction of TTTR by Collins and colleagues (2016), this cycle is often presented in a stepwise and linear manner with one phase leading to the next. Such application is akin to the concept of linear block periodisation in training physiology (Stone, Hornsby, Haff, Fry, Suarez, Liu, Gonzalez-Rave, & Pierce, 2021) whereby athletes benefit from the residual effects of the previous phase of training in the subsequent phase of training. In the case of TCTR, this would relate to the teach phase providing a positive and residual effect on the challenge phase. Whilst in theory this may seem logical and attractive, pragmatically the teaching, challenging, tweaking, and repeating phases may play out in a non-linear fashion. Indeed, it may be important for coaches to prepare for and review the individual response of youth athletes to the teach, challenge and tweak phases. This would represent a more sophisticated, dynamic, and individualised conceptualisation and application of TCTR and one that aligns more harmoniously to developmental experiences on the talent pathway, as explored in this thesis. Therefore and in practice, coaches should consider the developmental needs of the youth athlete and identify where the greatest improvements in their ability to learn through developmental experiences on the talent pathway may be present. In this sense, TCTR may need to be applied in a non-linear fashion according to the youth athletes long term needs and aims both in and outside of sport, whereby a challenge may need to be applied to stimulate the youth athlete to reflect on which skill(s) may need to be taught in the teaching phase. In this sense TCTR may be applied as challenge – teach – tweak – repeat or tweak – challenge – teach – repeat. Applying the concepts of TCTR in this fashion should empower coaches on the talent pathway to work closely with their youth athlete to use TCTR in a pragmatic and idiosyncratic way to support individual development on the talent pathway. Up to this point, most of the focus has been on

the practical application of findings of Chapters 4, 5, 6, and 7 on talent pathway coaching. It may also be important to acknowledge the potential importance and appropriateness of TCTR for a wider range of stakeholders supporting the development of youth athletes on the talent pathway. As acknowledged in Chapter 2, it is increasingly recognised that talent development happens across multiple settings and, therefore, involves multiple stakeholders, with talent pathway athletes likely to be co-existing in multiple worlds (i.e., school, clubs, academies, national pathways). As identified in the ATDE (Henriksen et al., 2010) this group of stakeholders (i.e., sports administrators, sport science practitioners, specialist coaching practitioners, and family) may operate within youth athletes micro environment and span both the non-athletic and athletic domains highlighting their importance in the development of the youth athlete. Therefore, the ability of a wider range of stakeholders to be pragmatic in their support of athlete development by using TCTR in a method, appropriate to their discipline of practice and their capability to support learning, forecasting, and reflection, seems important. If successful, the broader application of TCTR across the ATDE may offer the potential for enhance horizontal coherence (Webb et al., 2016) and optimisation of developmental experiences for a youth athlete irrespective of their stage of development, access to talent pathway coaching or perceived likelihood of ‘making it’ to professional sport.

8.4. Personal Practitioner Development

In line with the concept of the practitioner-researcher as described in Chapter 3, the initiation and development of this programme of research has, in parallel with the development of my working practice at Millfield School, both challenged and developed my practical delivery and that of my work colleagues. In this sense, my beliefs around supporting youth athletes engaged in talent pathways and my approach to delivering this support related to developmental experiences has evolved over the past 6 years. In the follow passage of text, I

will aim to outline how the content of this thesis has supported the development and evolution of my work.

My initial working practice at Millfield School was as an athletic development coach. As an athletic development coach, I am accredited with the United Kingdom Strength and Conditioning Association. In this role I was responsible for the assessment, planning and delivery of physical development solutions for student-athletes aged 13-18 years. My aim in this role was to support the long-term athletic development of youth athletes. I orientated much of my planning and programming of physical training based on a physical development model produced by Lloyd and Oliver (2012). The Youth Physical Development Model (Lloyd & Oliver, 2012) provides an evidence based, systematic and logical template on which to plan and programme the development of a range of physical qualities for youth athletes. Over time, I began to conceptualise my coaching practice as inter-disciplinary rather than mono disciplinary. In this sense, I conceptualised my coaching practice as moving from a single focus on physical development (e.g., unidimensional) to focus on psychosocial development integrated within physical development training (e.g., multi-dimensional). This conceptual shift in my practice was timely against the evolving research literature on long term athletic development. For example, Lloyd et al. (2015) published an updated model of athletic development which integrated physical development, psychosocial parameters and a phased approached to engagement and investment in sporting activity in the Composite Youth Development Model (Lloyd et al., 2015). This model took account of the individuality and complexity associated to the challenge of considering growth, maturation, physical and psychosocial development, and sports mastery. In line with my more nuanced approach to athletic development training, I began to read more widely on the topics of development models in sport (Côté, 1999; Gulbin et al., 2014) and optimising youth athlete development through sport and physical activity (Collins et al., 2012). In doing so, I began to place a greater and

greater emphasis on long term development (both physical and psychobehavioural) over short term performance outcomes. Piggot, Muller, Chivers, Papaluca and Hoyne (2018) suggests an inter-disciplinary over a mono-disciplinary approach to be advantageous in providing the opportunity for knowledge across sport science sub-disciplines to be integrated into practice. The impact of which generates the potential for a more rounded understanding of the complexities of sub-discipline knowledge and knowledge of athlete development. This interdisciplinary approach has afforded me the opportunity to explore a broader and deeper set of perspectives on scientific theory associated to the physical and psychobehavioural development of youth athletes. As acknowledged by Ciesielski (2017), this fuller set of perspectives has enabled me to take an applied perspective to my coaching beyond the discipline of strength and conditioning and, I believe, has allowed me to be more critical of the research literature pertaining to youth athlete development. Despite the evolution the Composite Youth Development Model, and considering youth development beyond physical adaptations, the limitations of such long term development modelling in youth sport as identified in Chapter 2 still holds true (i.e., a linear and step wise approach to representing the development of youth in sport). Given these limitations, I became more curious of the potential impacts, both positive and negative, of developmental and challenging experiences that youth athletes were navigating. Particularly for those youth athletes enrolled on talent pathways and enrolled at Millfield School. Indeed, the development of this curiosity lit the fire for me to want to research the topic of talent development and more specifically the developmental value of talent pathways for youth athletes. The aim being to enhance my professional practice in supporting youth athletes to optimise their learning and development during their time on the talent pathway. As such and through my professional practice in the areas of athletic development and leadership in sport at Millfield School, I have a much broader knowledge based and more holistic perspective on the true value of youth athletes' engagement in talent

pathways. The development of my knowledge and perspectives in this way has supported my motivation to want to develop my professional practice beyond my trade as an accredited strength and conditioning. In this sense, in 2017 I was promoted to the role of Lead Practitioner across the range of sport science disciplines in sport at Millfield School. In 2021, I was promoted to the role of Head of Sport Programmes and Student-Athlete Support. I believe these promotions were founded on the development of professional practice, driven by professional doctorate research and my desire to better understand the influence of developmental experiences for youth athletes on talent pathways in sport.

Through the programme of work presented in this thesis, my knowledge of the influence of developmental experiences on the talent pathway in sport has evolved significantly. My knowledge development in this area has had a positive impact on both my coaching practice and leadership in sport at Millfield School. I now take a more deliberately developmental stance on the role that experiences and challenges on the talent pathway can play to enhance the personal development of youth athletes. In this sense, the mnemonic of teach, challenge, tweak, repeat can be applied whereby I encourage youth athletes to positively engage in learning skills (e.g., goal setting, forecasting, commitment), applying these skills in practice (e.g., in the context of a challenge experience on the talent pathway such as severe injury), review the navigation of this experience with the support of their coach (e.g., through the use of reflection) and then reapply the skills towards another, may be more challenging experiences (e.g., striving to reach international selection criteria). A specific example of applying TCTR in my role at Millfield School is through my support of multisport student-athletes engaged in multiple school sport and external talent pathway programmes. A student-athlete I am currently supporting in this way is engaged in cricket and field hockey in both school 1st teams and regional talent pathways associated to cricket and field hockey, as well training and competing for the school tennis 1st team. This presents a sizable workload

challenge for this student-athlete given the training and competition load across sports and the need for coherence across stakeholders to balance an appropriate exposure to each sport at any given time. In short, I have taught the student-athlete to establish specific objectives for each school term and ensure they are attainable and realistic given their demands across sport and academia (i.e., the teaching process). From these objectives, the student-athlete is encouraged to design an mesocycle in which the volume of activity across their sports balances against their specific objectives (i.e., challenge process).. The student-athlete then engages in the term of sport, with weekly check-ins with me to make any necessary amendments to the following week (i.e., the tweak process). Once the academic term of sporting activity is complete we (myself and the student-athlete) review the positives and areas for improvement. This is done with input of the student-athlete's parents and coaches (both school and talent pathway coaches). This review process then sets up planning for the next term of sport activity where by the objectives and feedback from all stakeholders is considered to enhance the developmental experience of the student-athlete across sports (i.e., the repeat process). Interestingly, in my role at Millfield School, the mnemonic TCTR not only applies to my coaching practice as highlighted in the example above, but also through my leadership commitments in supporting coaches and practitioners to engage in the TCTR process, ensuring a long term and developmental approach is realised in practice.

In line with the programme of work in this thesis and my professional development at Millfield School, my understanding of youth athletes lived experiences of the complex, individualised, and nonlinear nature of development on talent pathways has advanced considerably. The evidence provided in this thesis suggests there likely to be several critical timepoints on a youth athlete's talent pathway journey which provide emotional disturbance, for example, difficult challenges and/or deselection. My use of graphical timelining in Chapters 4 and 5 was both insightful and transferable to my coaching and leadership positions.

I have found that timelining has allowed both the student-athletes that I coach, coaches and supportive stakeholders to organise and express the significance and/or meaning of previous and forthcoming events in sport. A specific example of the application of timelining in practice in my role at Millfield School has been in supporting a more coherent approach to training and competition design for student-athletes engaged in both field hockey and rugby at school 1st team and regional talent pathway levels in those sports. The timelining process allowed the school's Head of Rugby and Head of Hockey to more systematically identify and chronologically arrange when student-athletes may be available in their sports and across the two sports programmes, considering the cross over in competition phases and talent pathway demands. By combining and sharing details around their timelines, the heads of sports became more appreciative of each other's narratives, the demands of each sports programme and built rapport to better support student-athletes to actively engage in both sports at Millfield School. Indeed, I now use timelining with the early years sport science practitioners that I supervise and mentor at Millfield School to help them establish clarity in their strengths, areas for development, reflective practice and goal setting related to their discipline of practice. Collectively this programme of work has had a positive influence in the way I conceptualise and apply myself in my role as a coach and leader supporting the development of youth athletes.

8.5. Strengths of the Thesis

On review of the methods associated to the collection of qualitative data within this thesis, there are several features which I believe are representative of strengths of this research project. Before expanding on these specific features, I will touch on the rationale, design, and content of this thesis against a number of the evaluative criteria for excellent qualitative research as published by Yadav (2021). Yadav (2021) proposes that excellent qualitative research should:

Chapter 8: General Discussion

1. Be a worthy topic – Given the significant investment in talent pathways in sport, as identified in Chapter 2 and the introduction to Chapter 5, alongside the low probability of making it to professional sport as identified in Chapter 1, this thesis is relevant, timely and significant in exploring the influence of developmental experiences for all youth athletes on a talent pathway, not just those most likely to ‘make it’ to professional sport.
2. Have rich rigour – Given the justification made above, the sample of participants across Chapters 4, 5, 6, and 7 is diverse and captures the experiences of both ex- and current talent pathway athletes. In addition, data collection via one to one interview and the use of both TA and IPA in the data analysis process allowed the richness of the participants experiences to be explored.
3. Have credibility – A range of strategies, as outlined in Chapter 3, were utilised to enhance the trustworthiness of the methods for Chapters 4, 5, 6, and 7. In particular, and adding novelty to the exploration and understanding of challenge on the talent pathway, Chapter 7 utilised the triangulation of experiences from both young athletes and their coaches.
4. Have resonance – Given the pragmatic research philosophy, as outlined in Chapter 3, and the applied nature of the discussion sections in Chapter 4, 5, 6, and 7, I believe the findings of this thesis can positively influence the coaching community engaged in supporting the development of all youth athletes on a talent pathway. The purposeful sampling of participants, methodology applied and practical applications as outlined in Chapter 8, allows the findings to be transferable to both research and applied coaching on the talent pathway through the findings evocative and naturalistic generalisation (Yadav, 2021).

Expanding on the strengths of my thesis as outlined above, I would suggest the diversity of participants recruited across Chapters 4, 5, 6 and 7 represents a strength and uniqueness. This thesis captured experiences from participants who had been deselected from a talent

Chapter 8: General Discussion

pathway for on average 2.5 years in the case of Chapter 4 and 8.9 years in the case of Chapter 5. On the contrary, Chapters 6 and 7 recruited participants who were in a phase of their talent pathways equivalent to the earliest formalised and selective stages of their talent pathway's (M age = 15.8, SD = 0.9 years). Such spread of participants represents a strength of the thesis in that no matter what phase of the talent pathway a coach or stakeholder is supporting the development of a youth athlete, findings of this research could be applied to the youth athlete for support in the moment or as part of the youth athlete's future development. Indeed, the findings of Chapters 4 and 5 could be used by stakeholders involved in the design of talent pathways to better support the deselection process for youth athletes in which the ability to systematically capture the skills and experiences that have been developed by the youth athlete during their time on the talent pathway could be a powerful process to support the transition and exit process.

In relation to Chapters 4, 5, 6, and 7, participants were recruited from a range of talent pathways in sport, e.g., cricket, rugby, field hockey, golf, and swimming. Such diversity represents a strength of the thesis in that the results, conclusions, and practical applications could be seen as been transferable across a range of sport pathways. It may be important to note at this point, and one may be able to infer this from the generalised nature of the aims and objectives outlined in Chapter 1, that the purpose of this thesis was not to support practical delivery in one single sport talent pathway, one phase of the talent pathway or influence the strategic approach from a particular national governing body. Instead, the purpose was to shed a light more broadly on the experiences of youth athletes, and their coaches in the case of Chapter 7, on talent pathways and generate thought and reflection on optimising developmental experiences for the best of those individuals committing themselves to talent pathways in sport.

From a philosophical perspective I would suggest the pragmatic research approach utilised across Chapters 4, 5, 6, and 7 represents a strength. Such an approach ensured

coherence in methodology, analysis, and interpretation of the data across studies and supported the development of practically meaningful recommendations for coaches in the field of talent development in sport and for future research study in this area. From a more specific methodological perspective, Chapters 6 and 7 utilised a tracking approach, with Chapter 7 utilising data triangulation. This multi methods approach contributed towards a more realistic and accurate study of the participants experiences of challenge on the talent pathway.

8.6. Limitations of the Thesis

The discussion sections of Chapters 4, 5, 6, and 7 all identify a series of specific limitations related to each individual study. Therefore, I will utilise the following section to acknowledge a series of limitations coherent across these chapters. Participants for the studies in this thesis were recruited through personal networks in sport and participants were aware of my professional role in supporting the development of youth athletes on talent pathways as a coaching practitioner and in a leadership role. I aimed to navigate this limitation by conducting the interviews in a neutral location and utilising a critical friend (Corbin & Strauss, 2008) to review the analysis of the interview transcripts. Another methodological limitation was that the source of data for all four studies was qualitative in nature. Chapters 6 and 7 may have benefited from quantitative data capture in the intervening period between the two interviews with participants. Such data could have been collected by tracking a particular metric/s during this period. The rationale for selecting a particular topic area for data collect could have been informed through the analysis of data in interview 1. In addition, this intervening period could also have been used for participants to record their experiences in a reflective diary. Such information may have validated the information captured during the participant interviews and allowed for further development of the experiences that participants shared on related to challenge in the case of these studies. Furthermore, the tracking period for Chapters 6 and 7, could have been extended further to be more closely associated to a longitudinal tracking

approach, e.g., 12-18 months rather than 5 months. Finally, and with reference to Chapter 7, data triangulation could have been extended further to capture the experiences of the young athlete's parent/s or guardian/s and/or members of the support network around the young athlete. Again, such an approach may have provided a greater accuracy and trustworthiness related to this data collection.

8.7. Future Research

A robust series of future research suggestions have been provided in the discussion sections of Chapters 4, 5, 6, and 7. As not to repeat these suggestions, the follow section will explore future research related more globally to the concept of developmental experiences on the talent pathway in sport. Whilst this thesis has captured the influence of developmental experiences of young athletes in the early stages of their talent pathway journey (i.e., the transition from investment to specialisation phase in Chapters 6 and 7) and in the years post deselection from the talent pathway (i.e., in Chapters 4 and 5), future research in this area could benefit from tracking a cohort of athletes longitudinally on the talent pathway. Such longitudinal tracking could explore the if and how the perception of a youth athlete's most difficult challenge changes across the timeline of a pathway journey and subsequently if and how the mechanisms required to navigate such challenges also change. Research of this kind would extend the understanding of the role and impact of challenging experiences in sport and particularly the nuance of challenge across the course of the pathway.

Alongside the value of longitudinal tracking in future studies, interventions exploring the effects of mechanisms previously identified to aid in navigating challenging experiences may be valuable. Typically, the deployment of psychological skills and the support from social networks have been identified as critical to aid youth athletes navigate challenge on the talent pathway (Savage, 2019; Taylor et al., 2022). Exploring the effect of applying psychological

skills and assessing the influence of social support pre, during and post challenge could provide an additional insight into the efficacy of such approaches to navigating challenge in sport.

Finally, and against the call for research on challenge in sport to explore the triangulation of athlete experiences with those of their wider support network (Savage, 2019) future research could explore the role of a wider range of social support. Triangulating the experience of youth athlete's navigating challenge on the talent pathway with the likes of sporting and non-sporting peers, family, and social support from the educational organisations that youth athletes are enrolled may be of value. Given the importance of social support on the talent pathway as identified in Chapters 4, 6, and 7, gathering the experiences of this network may enhance our understanding of the way in which challenge is perceived by various individuals actively supporting the youth athlete on the talent pathway. Research of this kind could also provide insight into the influence of individual subsystems with a youth athletes social network, their interaction and distinct contribution to the process of support.

Akin to exploring the post life experiences of ex-talent pathway athletes as per Chapters 4 and 5, the research on deselected talent pathway athletes may benefit from expanding on the process of deselection. As referenced in Chapter 2, typically, deselection research in youth sport has focused on the outcome of deselection and the psychological impact of the deselection decision on the youth athlete and their families (Neely et al., 2016; Neely et al., 2017). Given the potential for developmental experiences on the talent pathway to contribute to life beyond sport as per the findings in Chapters 4 and 5 of this thesis, there are several avenues for future research on this topic. Specifically, the exploration of how formal athlete development review processes contribute to an athlete's knowledge of sporting and non-sporting development may be of interest. Tracked over time, this may aid in more systematically and progressively outlining an effective mechanism for capturing the skills and experiences that youth athletes learn, deploy, and develop across the time course of their talent pathway journey. In parallel,

intervention studies exploring the actual and perceived effectiveness of review processes between athletes and coaches may allow for optimising the methods by which youth athletes are critiqued on the talent pathway and thus supported to consider the transferability of their development on the talent pathway to other domains outside of sport.

8.8. Conclusions

This thesis aimed to examine the influence of developmental experiences on the talent pathway in sport. Through a qualitative investigation of both ex and current talent pathway youth athletes and current talent pathway coaches, the ability to engage with and proactively navigate developmental experiences for success in and beyond sport has become evident. Taken collectively, the findings of this thesis have contributed to the existing literature by considering deselection from the talent pathway as a process rather than an outcome, and a process that has the potential to support future success for deselected youth athletes by recognising the rich development opportunities that are characteristic of the talent pathway experience. Indeed, and in the context of challenging experiences, the findings of this thesis recognised the bespoke nature, impact, and complexity of most difficult challenges for youth athlete's more so than the challenge itself. The findings of this thesis provide practical recommendations for coaches on the talent pathway to optimise athlete development through developmental experiences. Notably the teach – challenge – tweak – repeat cycle provides a way forward for coaches to practically support youth athletes to learn the skills, experience challenges and reflect on experiences to enhance a youth athlete's preparedness for future and potentially more difficult challenges on the talent pathway.

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Appendix A

A.1. Participant information sheet chapter 4

A.2. Participant consent form chapter 4

A.3. Interview guide chapter 4

A.4. Participant information sheet chapter 5

A.5. Participant consent form chapter 5

A.6. Interview guide chapter 5

A.7. Participant information sheet chapter 6

A.8. Participant consent form chapter 6

A.9. Interview guide chapter 6

A.10. Participant information sheet chapter 7

A.11. Participant consent form chapter 7

A.12. Interview guide chapter 7

Appendix A.1. Participant information sheet chapter 4

Appendix A.1. Participant information sheet chapter 4

"I Didn't Make it, But...": Deselected Athletes' Experiences of the Talent Development Pathway

Please read the information below thoroughly before deciding whether or not to participate in this study.

Introduction

You are being invited to take part in a research study being conducted as part of a Professional Doctorate (a university course) in Elite Performance. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information – my contact details are at the end. Take your time to decide whether or not you wish to take part.

Thank you for reading this information sheet, which you should keep if you decide to take part in the study.

Who will conduct the research?

The research will be conducted by Graham Williams (DProf Student) under the supervision of Dr Aine MacNamara

What is the purpose of the research?

The success rates of making it to the very top in sport are low. However, we know there are wide ranging benefits to being involved in high quality talent development programmes. Therefore, we are interested in finding out more about your previous experiences in your talent development pathway and explore the added value of being “thereabouts” in a talent domain as a facilitator of your future achievement outside this pathway. Learning more about the added value of being involved in talent development pathway will help us support coaches, performers and parents/guardians to help you make the most of the development experience.

How long will this study last?

This study will start in July 2018 and continue for 2 months until September 2018.

Appendix A.1. Participant information sheet chapter 4

What will you be asked to do?

If you decide to take part in the study, you will be interviewed on one occasion. During this interview, you will be asked some questions about your experiences of participating in a formal talent development programme, what you felt you learnt during this period and how these experiences have helped facilitate your successes ‘post release’ from the talent development programme.

Each interview will last no more than 45 minutes, will be recorded and will take place at a time and location that is convenient for you.

What are the anticipated benefits of participating in the research?

By participating in this study, you will help us understand the added value of youth engaging in a talent development programme as a facilitator for future success. This will help us develop guidelines to support coaching, learning and personal enrichment within talent development settings. We will provide feedback at the end of the project if requested.

Are there any risks associated with participating in the research?

There are no risks associated with this task.

Do you have to take part?

No. Participation is entirely voluntary; if you wish to participate in this study, please contact the researchers within one week of receiving this information sheet.

If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you, are still free to withdraw at any time and without giving a reason.

What happens if you change your mind and want to withdraw?

If at any time you change your mind and wish to withdraw, then you may do so immediately by simply leaving. You do not have to give a reason for withdrawing. If you change your mind after completing a series of interviews and wish to withdraw your data, you will be able to do so at any time. However, if you wish to withdraw after the end of the project, you will be able to do so only up until one week after the last interview date. To do so, you will need to contact the lead researcher using the details listed below.

Appendix A.1. Participant information sheet chapter 4

Will I be paid for participating in the research?

Your involvement in this project is voluntary.

What will happen to the information collected as part of the study?

All data will be stored securely on a password protected computer accessible only to the researchers. This data will be stored for 5 years and then destroyed. All data will be kept anonymous – we will use a number and not your name to identify you.

The data collected may be used for a professional doctorate thesis, journal publication, conference presentations and may be used in textbooks or related magazines.

Who has reviewed the study?

To ensure that the project is being conducted in a professional and ethical manner, the project has been approved by the University of Central Lancashire Ethics Committee.

Who can you contact if you have a complaint about the project?

If you have any complaints about the study you may contact the University Officer for Ethics (OfficerforEthics@uclan.ac.uk).

Who can you contact if you have any questions about the project or wish to withdraw my responses?

Please contact the lead researcher: Graham Williams at grahamgwilliams@hotmail.co.uk or research supervisor: Dr Aine MacNamara at AMacNamara1@uclan.ac.uk.

Appendix A.2. Participant consent form chapter 4

Appendix A.2. Participant consent form chapter 4

Investigation:

Examining deselected athletes from talent pathways: "I Didn't Make it, But..."

Investigators: Graham Williams (D.Prof Student), Dr Aine MacNamara (Supervisor),

Participant Name: _____

Please read and initial each statement:

1. I have read and understand the subject information sheet. I have had an opportunity to ask questions and these have been answered to my satisfaction. _____

2. I understand that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason. _____

3. I agree to detailed notes being taken during the interview. _____

4. I agree to the recording and transcription of my interview. _____

5. I understand that if I withdraw within a week period post-completion, all associated data will not be used and will be destroyed.

However, if I withdraw after the week period post-completion, it will no longer be possible to remove my data because it will have been rendered anonymous

6. I understand that I will be offered an opportunity to review and amend the data collected to ensure its accurate interpretation, to return it within the agreed timeframe, and that failure to return the data will result in it being used as read, within the study. _____

7. I understand that the data [*field notes, interviews*] will be stored for a period of five years from the end of the project and then destroyed. _____

8. I agree to anonymised quotes being used within any publications or presentations resulting from this work. _____

9. I agree to take part in this study. _____

Signature of Participant:

I certify that I have explained to the above individual the nature, purpose and possible risks associated with participation in this research study, have answered any questions that have been raised, and have witnessed the above signature

Signature of Investigator:

Date:

P.T.O.

Appendix A.2. Participant consent form chapter 4

If you wish to receive a copy of the results of this study, please state how you would like to receive these and provide the appropriate contact details.

Would you like a copy of the results from this study? (YES / NO) *

If so, how would you like to receive these results? (POST / EMAIL)*

** Please delete as appropriate*

Please provide the appropriate contact details in the space provided below:

Appendix A.3. Interview guide chapter 4

QUESTION	PROBE	PROMPT	1.1 REASON	REFERENCE
1a. Tell me about the time you spent in the academy programme? 1b. Describe your involvement in the academy programme?	<ul style="list-style-type: none"> • How did you get selected onto the academy? • How much time did you commit to the academy programme? • What kind of training did you do? How much of each component? How often? • What did you enjoy most about being on the academy? • How did the training/competition change as you progressed through the age groups? • How much and what type of training did you do outside of tech/tact development? • How did you balance your sporting commitments with school/other sports? 	<ul style="list-style-type: none"> • Selection • Deselection • Experiencing success • Being challenged • Dealing with expectations • Balancing commitments • Awareness of progress • Comparison to peers • Learning more than winning • Dealing with life beyond the academy 	<ul style="list-style-type: none"> • Personal development with academy programme • Challenges of sport • Nature of academy engagement • Positives and negatives of being associated with an academy 	

	<ul style="list-style-type: none"> • How did you get deselected from the academy? • What support was offered to you on your deselection/exit? 			
2. What was the best thing about being on the academy programme?	<ul style="list-style-type: none"> • What did you enjoy most about your academy experience? • What do you miss about being on the academy programme? 	<ul style="list-style-type: none"> • Performing • Winning • Camaraderie • Quality of coaching • Opportunities within and beyond sport • Representing the club • Personal success 	<ul style="list-style-type: none"> • Motives for participating • Learning experiences 	
3. What was the most challenging thing about being on the academy programme?	<ul style="list-style-type: none"> • Can you tell me what was difficult? And Why? • Can you tell me what was challenging? And Why? • Can you tell me how this change as you progressed through the academy? • What made it difficult? • How did you cope with the challenges? 	<ul style="list-style-type: none"> • Not getting picked • Training volume/intensity • Demand of coaches • Pressure from parents • Pressure from myself • Support system • Lessons learnt from the challenges • Expectations 	<ul style="list-style-type: none"> • Challenges associated with this development process • Result of high expectations • Personal development alongside sporting development 	

	<ul style="list-style-type: none"> • How were you supported to embrace these challenges? 			
4a. Since leaving the academy programme, which skills that you learnt in the academy have you utilised?	<ul style="list-style-type: none"> • Can you state which skills in particular have you found most beneficial? • Can you tell me how have you used these skills to succeed outside of sport? • How conscious are you that these skills were developed in the academy programme? • Which scenarios have you used these skills? • How have these skills benefited you? • Why do you think these skills benefited you? • Can you state which experiences in particular have you found most beneficial? • How have you used these experiences to succeed outside of sport? 	<ul style="list-style-type: none"> • Development beyond technical and tactical • Application of skills • Awareness of learning • Skill development as a facilitator of success beyond sport • Acquiring experiences as a facilitator of success beyond sport 	<ul style="list-style-type: none"> • Perceptions about ability beyond sport • Skills and experiences to excel in and beyond sport • Value added by academy programme 	
4b. Since leaving the academy programme,				

Appendix A.3. Interview guide chapter 4

<p>which experiences that you gained in the academy have benefited you in other environments?</p>	<ul style="list-style-type: none"> • How conscious are you that these experiences were developed in the academy programme? • In what scenarios have you used these experiences? • How have these experiences benefited you? • Why do you think these skills benefited you? 			
<p>5a. If you were to repeat your academy experience again, what things would you do differently based on what you know now?</p>	<ul style="list-style-type: none"> • How would these things have benefited you more at the time? • Why do you think you did not do these things at the time? • How do you think these things would have changed your academy experience? • How would these things have benefited you more in life after the academy? 	<ul style="list-style-type: none"> • Improved experience • Creating opportunities for development • Reframing previous experiences • Supporting personal growth • Success beyond and within sport 	<ul style="list-style-type: none"> • Learning from the past • Recognising development opportunities • Checking and challenging what is normal in academy programmes 	

Appendix A.3. Interview guide chapter 4

5a. If you were to repeat your academy experience again, what things would you want the academy to do differently based on what you know now?	<ul style="list-style-type: none">• How would these things have benefited you more at the time?• Why do you think the academy did not do these things at the time?• How do you think these things would have changed your academy experience?• How would these things have benefited you more in life after the academy?			
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Appendix A.4. Participant information sheet chapter 5

Appendix A.4. Participant information sheet chapter 5

Coaching on the Talent Pathway: Understanding the Influence of Developmental Experiences on Coaching Philosophy

Participant Information Sheet

Please read the information below thoroughly before deciding whether or not to participate in this study.

Introduction

You are being invited to take part in a research study being conducted as part of a Professional Doctorate (a university course) in Elite Performance. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information – my contact details are at the end. Take your time to decide whether or not you wish to take part. Thank you for reading this information sheet, which you should keep if you decide to take part in the study.

Who will conduct the research?

The research will be conducted by Graham Williams (DProf Student) under the supervision of Dr. Aine MacNamara

What is the purpose of the research?

The success rates of making it to the very top in sport and the performing arts are low. However, we know there are wide ranging benefits to being involved in high quality talent development programmes. Therefore, we are interested in finding out more about your previous experiences in your talent development pathway and explore the added value of being “thereabouts” in a talent domain as a facilitator of your future coaching achievements in talent development. More specifically, we are interested in exploring the lessons you learnt from life in the pathway that now enhances the provision you are offering to your current performers. Learning more about the added value of being involved in talent development pathway will help us support coaches, performers and parents/guardians to help you make the most of the development experience.

How long will this study last?

This study will start in June 2018 and continue for 2 months until August 2018.

Appendix A.4. Participant information sheet chapter 5

What will you be asked to do?

If you decide to take part in the study, you will be interviewed on one occasion. During this interview, you will be asked some questions about your experiences of participating in a formal talent development programme, what you felt you learnt during this period, how these experiences have helped facilitate and enhance your coaching practice with your current performers.

Each interview will last no more than 45 minutes, will be recorded and will take place at a time and location that is convenient for you.

What are the anticipated benefits of participating in the research?

By participating in this study, you will help us understand the added value of youth engaging in a talent development programme as a facilitator for future success. In addition, it will aim to enhance our understanding of the benefits having ex-talent development performers coaching back in a talent pathway. This will help us develop guidelines to support coaching, learning and personal enrichment within talent development settings. We will provide feedback at the end of the project if requested.

Are there any risks associated with participating in the research?

There are no risks associated with this task.

Do you have to take part?

No. Participation is entirely voluntary; if you wish to participate in this study, please contact the researchers within one week of receiving this information sheet.

If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you, are still free to withdraw at any time and without giving a reason.

What happens if you change your mind and want to withdraw?

If at any time you change your mind and wish to withdraw, then you may do so immediately by simply leaving. You do not have to give a reason for withdrawing. If you change your mind

Appendix A.4. Participant information sheet chapter 5

after completing a series of interviews and wish to withdraw your data, you will be able to do so at any time. However, if you wish to withdraw after the end of the project, you will be able to do so only up until one week after the last interview date. To do so, you will need to contact the lead researcher using the details listed below.

Will I be paid for participating in the research?

Your involvement in this project is voluntary.

What will happen to the information collected as part of the study?

All data will be stored securely on a password protected computer accessible only to the researchers. This data will be stored for 5 years and then destroyed. All data will be kept anonymous – we will use a number and not your name to identify you.

The data collected may be used for a professional doctorate thesis, journal publication, conference presentations and may be used in text books or related magazines.

Who has reviewed the study?

To ensure that the project is being conducted in a professional and ethical manner, the project has been approved by the University of Central Lancashire Ethics Committee.

Who can you contact if you have a complaint about the project?

If you have any complaints about the study you may contact the University Officer for Ethics (OfficerforEthics@uclan.ac.uk).

Who can you contact if you have any questions about the project or wish to withdraw my responses?

Please contact the lead researcher: Graham Williams at grahamgwilliams@hotmail.co.uk or research supervisor: Dr Aine MacNamara at AMacNamara1@uclan.ac.uk.

Appendix A.5. Participant consent form chapter 5

Appendix A.5. Participant consent form chapter 5

Investigation:

Examining deselected athletes from talent pathways: Coaching on the Talent Pathway

Investigators: Graham Williams (D.Prof Student), Dr Aine MacNamara (Supervisor),

Participant Name: _____

Please read and initial each statement:

1. I have read and understand the subject information sheet. I have had an opportunity to ask questions and these have been answered to my satisfaction. _____
2. I understand that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason. _____
3. I agree to detailed notes being taken during the interview. _____
4. I agree to the recording and transcription of my interview. _____
5. I understand that if I withdraw within a week period post-completion, all associated data will not be used and will be destroyed.
However, if I withdraw after the week period post-completion, it will no longer be possible to remove my data because it will have been rendered anonymous _____
6. I understand that I will be offered an opportunity to review and amend the data collected to ensure its accurate interpretation, to return it within the agreed timeframe, and that failure to return the data will result in it being used as read, within the study. _____
7. I understand that the data [*field notes, interviews*] will be stored for a period of five years from the end of the project and then destroyed. _____
8. I agree to anonymised quotes being used within any publications or presentations resulting from this work. _____
9. I agree to take part in this study. _____

Signature of Participant:

I certify that I have explained to the above individual the nature, purpose and possible risks associated with participation in this research study, have answered any questions that have been raised, and have witnessed the above signature

Signature of Investigator:

Date:

P.T.O.

Appendix A.5. Participant consent form chapter 5

If you wish to receive a copy of the results of this study, please state how you would like to receive these and provide the appropriate contact details.

Would you like a copy of the results from this study? (YES / NO) *

If so, how would you like to receive these results? (POST / EMAIL)*

** Please delete as appropriate*

Please provide the appropriate contact details in the space provided below:

Appendix A.6. Interview guide chapter 5

QUESTION	PROBE	PROMPT	1.2 REASON	REFERENCE
1. Tell me about your time as an athlete in the academy/TD programme?	<ul style="list-style-type: none"> • How did you get selected onto the academy/TD programme? • How much time did you commit to the academy/TD programme? • What did you enjoy most about being on the academy/TD programme? • How did the training/competition change as you progressed through the age groups? • How much and what type of training did you do outside of tech/tact development? • How did you balance your sporting commitments with school/other sports? • How did you get deselected from the academy? • What support was offered to you on your deselection/exit? How did this facilitate your transition into coaching? 	<ul style="list-style-type: none"> • Selection • Deselection • Experiencing success • Being challenged • Dealing with expectations • Balancing commitments • Awareness of progress • Comparison to peers • Learning more than winning • Dealing with life beyond the academy/TD programme 	<ul style="list-style-type: none"> • Personal development within academy/TD programme • Challenges of sport • Nature of academy/TD programme engagement • Positives and negatives of being associated with an academy/TD programme 	

<p>2. Tell me about the time you have spent as a coach in the academy/TD programme?</p>	<ul style="list-style-type: none"> • Why did you choose to become a coach at a youth level? • How did you get the opportunity to coach at a youth level? • What do you enjoy most about coaching at a youth academy/TD level? • What do you find most challenging about coaching at a youth academy/TD level? • How would you describe your role as a coach of youth athletes? • What do you think world class coaching looks like at a youth academy/TD programme level? • Who or what has helped you strive get closer to this world class level? 	<ul style="list-style-type: none"> • Choice to coach in youth sport • Role of the coach • Quality of coaching • Success beyond winning • Opportunities within and beyond youth sport • Personal success 	<ul style="list-style-type: none"> • Motives for coaching • Reflective ability as a coach • Support networks 	
<p>3. What experiences did you have in the academy/TD programme as a performer that have helped you as a coach?</p>	<ul style="list-style-type: none"> • Can you tell me what the experience was? And why it has impacted your coaching? • Can you tell me how this experience facilitated your development as a coach? And Why? 	<ul style="list-style-type: none"> • Perceptual abilities • Cognitive abilities • Declarative vs intuitive knowledge • Lessons learnt from the challenges • Lessons learnt from opportunities 	<ul style="list-style-type: none"> • Challenges/opportunities associated with time in a development programme • Carryover of experiences into coaching 	

	<ul style="list-style-type: none"> • Can you tell me who helped you use this experience to your benefit? • Can you tell me how this experience has subsequently benefited your athletes? 	<ul style="list-style-type: none"> • Facilitative/debilitative experiences • Application of experiences • Awareness of learning • Acquiring experiences as a facilitator of success beyond sport 	<ul style="list-style-type: none"> • Personal development alongside sporting development 	
4. What skills did you develop in the academy/TD programme as a performer that have helped you as a coach?	<ul style="list-style-type: none"> • Can you tell me what the skill was? And why it has impacted your coaching? • Can you tell me how this skill has facilitated your development as a coach? And Why? • Can you tell me who helped you develop and use this skill to your benefit? • Can you tell me how this skill has subsequently benefited your athletes? 	<ul style="list-style-type: none"> • Perceptual abilities • Cognitive abilities • Declarative vs intuitive knowledge • Lessons learnt from the challenges • Lessons learnt from opportunities • Facilitative/debilitative experiences • Application of experiences • Awareness of learning • Acquiring experiences as a facilitator of success beyond sport 	<ul style="list-style-type: none"> • Challenges/opportunities associated with time in a development programme • Carryover of experiences into coaching <p>Personal development alongside sporting development</p>	

Appendix A.6. Interview guide chapter 5

<p>5. What experiences do you aim to provide or your youth athletes currently, in order to develop qualities outside of technical and tactical improvement</p>	<ul style="list-style-type: none"> • Can you tell me what these experiences are? And why they are beneficial to the athletes you work with? • Can you tell me how these experiences facilitate the development of your athletes? • What support do you provide your athletes in order for them to maximise their learning from these experiences? • How do your athletes get the opportunity to show that learning has occurred? 	<ul style="list-style-type: none"> • Developmental experiences • Creating opportunities for development • Support opportunities for development • Supporting personal growth • Success beyond and within sport 	<ul style="list-style-type: none"> • Recognising development opportunities • Checking and challenging what facilitative experiences are developed in academy/TD programmes 	
<p>6. What skills do you aim to provide or your youth athletes currently, in order to develop qualities outside of technical and tactical improvement</p>	<ul style="list-style-type: none"> • Can you tell me what these skills are? And why they are beneficial to the athletes you work with? • Can you tell me how these skills facilitate the development of your athletes? • What support do you provide your athletes in order for them to maximise their learning from these skills? • How do your athletes get the opportunity to show that learning has occurred? 	<ul style="list-style-type: none"> • Developmental skills • Creating opportunities for development • Support opportunities for development • Supporting personal growth • Success beyond and within sport 	<ul style="list-style-type: none"> • Recognising development opportunities • Checking and challenging what facilitative skills are developed in academy/TD programmes 	

Appendix A.7. Participant information sheet chapter 6

Appendix A.7. Participant information sheet chapter 6

Title: Exploring Young Athlete's Experience of Challenges on the Talent Pathway

Please read the information below thoroughly before deciding whether or not to participate in this study.

Introduction

You are being invited to take part in a research study being conducted as part of a Professional Doctorate (a university course) in Elite Performance. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information – my contact details are at the end. Take your time to decide whether or not you wish to take part.

Thank you for reading this information sheet, which you should keep if you decide to take part in the study.

Who will conduct the research?

The research will be conducted by Graham Williams (DProf Student) under the supervision of Dr. Aine MacNamara. Graham Williams is employed by Millfield School as Lead Practitioner and Athletic Development Coach, however it is important to recognise the separation of roles between coaching and research in this context. The information you provide in this study will exclusively be utilised to inform the development of this study and will not impact your experience through sport at Millfield School.

What is the purpose of the research?

It is believed that young athletes all follow very different roads as they try to make it to the top of their sport. We are interested in finding out more about your journey in sport and your experiences within sport, whilst in full time education. We are interested in how you cope with the ‘ups and downs’ of your pathway in sport and learning more about what helps you be the best you can be. Learning more about the challenges of being involved in sport will help us support coaches, players and parents/guardians to help you make the most of the experience.

Appendix A.7. Participant information sheet chapter 6

How long will this study last?

This study will start in June 2019 and continue for 12 months until June 2020.

What will you be asked to do?

If you decide to take part in the study, you would be interviewed at the start of the project and then every month for 12 months. During these interviews, you would be asked some questions about what is going on in your sport, how you have felt, and what it has been like and how these experiences help you get better.

In addition, a parent/guardian would be interviewed three times - at the start, mid-point and conclusion of the project. Your coach would be also interviewed at the start of the project and then at 3-monthly intervals over the period of 12 months.

Each interview will last no more than 45 minutes, will be recorded and will take place at a time that is convenient for you at your academy ground.

What are the anticipated benefits of participating in the research?

By participating in this study, you will help us understand young player's journey in sport. This will help us develop guidelines to support coaching and learning within the academy settings, as well as school sports programmes. We will provide regular feedback about the project and an end of project report.

Are there any risks associated with participating in the research?

There are no risks associated with this task.

Do you have to take part?

No. Participation is entirely voluntary; If you wish to participate in this study, please contact the researchers within one week of receiving this information sheet.

If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. However, a parental consent will be asked as you are under the age of 16. If you decide to take part you are still free to withdraw at any time and without giving a reason.

What happens if you change your mind and want to withdraw?

Appendix A.7. Participant information sheet chapter 6

If at any time you change your mind and wish to withdraw, then you may do so immediately by simply leaving. You do not have to give a reason for withdrawing. If you change your mind after completing a series of interviews and wish to withdraw your data, you will be able to do so at any time. However, if you wish to withdraw after the end of the project, you will be able to do so only up until one week after the last interview date. To do so, you will need to contact the lead researcher using the details listed below.

Will I be paid for participating in the research?

Your involvement in this project is voluntary. However, if any of the themes that emerge from interview, related to the challenge of engaging in a talent pathway whilst in full time education, require support from a counselling practitioner, this service is available through Millfield School.

What will happen to the information collected as part of the study?

All data will be stored securely on a password protected computer accessible only to the researchers. This data will be stored for 5 years and then destroyed. All data will be kept anonymous – we will use a number and not your name to identify you.

The data collected may be used for a professional doctorate thesis, journal publication, conference presentations and may be used in text books or related magazines.

Who has reviewed the study?

To ensure that the project is being conducted in a professional and ethical manner, the project has been approved by the University of Central Lancashire Ethics Committee.

Who can you contact if you have a complaint about the project?

If you have any complaints about the study you may contact the University Officer for Ethics (OfficerforEthics@uclan.ac.uk).

Who can you contact if you have any questions about the project or wish to withdraw my responses?

Please contact the lead researcher: Graham Williams at grahamgwilliams@hotmail.co.uk or research supervisor: Dr Aine MacNamara at AMacNamara1@uclan.ac.uk

A.8. Participant consent form chapter 6

A.8. Participant consent form chapter 6

Investigation: Exploring Young Athlete's Experience of Challenges on the Talent Pathway

Investigators: Graham Williams (D.Prof Student), Dr Aine MacNamara (Supervisor),

Participant Name: _____

Please read and initial each statement:

1. I have read and understand the subject information sheet. I have had an opportunity to ask questions and these have been answered to my satisfaction. _____
2. I understand that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason. _____
3. I agree to detailed notes being taken during the interview. _____
4. I agree to the recording and transcription of my interview. _____
5. I understand that if I withdraw within a week period post-completion, all associated data will not be used and will be destroyed.
However, if I withdraw after the week period post-completion, it will no longer be possible to remove my data because it will have been rendered anonymous _____
6. I understand that I will be offered an opportunity to review and amend the data collected to ensure its accurate interpretation, to return it within the agreed timeframe, and that failure to return the data will result in it being used as read, within the study. In this scenario, data [*field notes, interviews*] will be encrypted with a password to protect its content. _____
7. I understand that the data [*field notes, interviews*] will be stored for a period of five years from the end of the project and then destroyed. _____
8. I agree to anonymised quotes being used within any publications or presentations resulting from this work. _____
9. I agree to take part in this study. _____

Signature of Participant:

I certify that I have explained to the above individual the nature, purpose and possible risks associated with participation in this research study, have answered any questions that have been raised, and have witnessed the above signature

Signature of Investigator:

Date:

P.T.O.

A.8. Participant consent form chapter 6

If you wish to receive a copy of the results of this study, please state how you would like to receive these and provide the appropriate contact details.

Would you like a copy of the results from this study? (YES / NO) *

If so, how would you like to receive these results? (POST / EMAIL)*

** Please delete as appropriate*

Please provide the appropriate contact details in the space provided below:

If you have any complaints or concerns about the study you may contact the University Officer for Ethics (OfficerforEthics@uclan.ac.uk).

Appendix A.9. Interview guide chapter 6

YOUNG ATHLETE - First induction interview				
Purpose	Question	Prompt	Probes	Analysis
Examination of Pathway to now; key incidents, identified critical incidents.	On this timeline, can you draw me your pathway to where you are now in the academy?	When did you start? What were the biggest ups and downs? What were the biggest learning experiences? What did you actually learn? What helped you the most... ‘here’... ‘here’... ‘here’? Who helped you the most... ‘here’... ‘here’... ‘here’? Do you think this was the same for everyone on your team?		Nature of Involvement Measure and description of past critical incidents Major critical incidents – stand out as being significant incidents up to now Positive and negative developmental impact of challenges PCDEs - possessed, developed, deployed What skills did they have? Skills developed through challenges.
Retrospective examination of the season so far (i.e., the last 6 months- key incidents,	On this timeline can you tell me about the season so far?	What were the biggest ups and downs?		Measure and description of critical incidents

Appendix A.9. Interview guide chapter 6

identified critical incidents, reaction to critical incidents),		<p>What were the biggest learning experiences? What did you learn?</p> <p>What helped you the most?</p> <p>Who helped you the most?</p> <p>What helped you the most ...'here'... 'here'... 'here'?</p> <p>Who helped you the most... 'here'... 'here'... 'here'?</p> <p>Was it what you expected? Do you think you were prepared for what happened?</p>		<p>Major critical incidents – stand out as being significant incidents up to now</p> <p>Did they possess the skills to make the most of the opportunities available?</p> <p>Social Support Skills developed through challenges.</p>
Examination of specific critical incidences	What was the most difficult thing that happened so far this season?	<p>Why was it challenging?</p> <p>Were you prepared for it?</p> <p>What do you think you learned from it? Can you give me examples?</p> <p>Who helped you? How?</p> <p>Do you think this was the same for everyone on your team?</p>		<p>Critical incidents.</p> <p>Positive and negative developmental impact of challenges</p>

Appendix A.9. Interview guide chapter 6

		What would you have done differently?		
Prospective examination of the next month.	On this timeline what do you think the next month is going to be like?	What do you think will happen? Anything big coming up? How well prepared do you feel? How do you think you will manage? Can you give me an example? Is this the same for everyone?		Ability to predict and prepare for future developments.

Appendix A.10. Participant information sheet chapter 7

Appendix A.10. Participant information sheet chapter 7

Title: Forecasting and Reflecting on Challenging Experiences on the Talent Pathway

Please read the information below thoroughly before deciding whether or not to participate in this study.

Introduction

You are being invited to take part in a research study being conducted as part of a Professional Doctorate in Elite Performance because you are a coach at Millfield School.

Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information – my contact details are at the end. Take time to decide whether or not you wish to take part.

Thank you for reading this information sheet, which you should keep if you decide to take part in the study.

Who will conduct the research?

The research will be conducted by Graham Williams (DProf Student) under the supervision of Dr. Aine MacNamara. Graham Williams is employed by Millfield School as Lead Practitioner and Athletic Development Coach, however it is important to recognise the separation of roles between coaching and research in this context. The information you provide in this study will exclusively be utilised to inform the development of this study and will not impact your experience through sport at Millfield School.

What is the purpose of the research?

Contemporary research findings suggest that young athletes follow an individualized, complex and, ultimately, non-linear trajectory to the highest level. It has been suggested that

Appendix A.10. Participant information sheet chapter 7

experiencing a degree of challenge can be the key to successful development. Therefore, it is important that we explore the nature and effects of these developmental challenges in order to optimize the pathway. It is also important that we understand the skills required to successfully negotiate developmental challenges so that guidelines for optimising, periodising and supporting challenge can be developed.

How long will this study last?

This study will start in June 2019 and continue for 12 months until June 2020.

What will you be asked to do?

In this study we will interview the players at the start of the project and then every month for 12 months.

If you decide to take part in the study you would be interviewed at the start of the project and then at 3-monthly intervals over the period of 12 months. During these interviews, you would be asked a series of semi-structured questions. The focus of the interviews will be to track and consider the experiences, and subsequent behaviour, of young athletes as they experience challenge on the talent development pathway whilst enrolled in full time education.

Each interview will last no more than 45 minutes and will take place at a time and place that is convenient for you. The interview will be recorded and then transcribed.

We will also interview the player's parent guardian at the start, mid-point and conclusion of the project.

What are the anticipated benefits of participating in the research?

By participating in this study, you will help us understand the nature, incidence and consequence of challenge on the pathway. This will help us develop guidelines to support coaching and learning within the academy settings, as well as in education environments. We will provide regular feedback about the project and an end of project report.

Are there any risks associated with participating in the research?

There are no risks associated with this task. However, if any of the themes that emerge from interview, related to the challenge of engaging in a talent pathway whilst in full time education, require support from a counselling practitioner, this service is available through Millfield School.

Do you have to take part?

No. Participation is entirely voluntary; If you wish to participate in this study, please contact the researchers within one week of receiving this information sheet.

If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason.

What happens if you change your mind and want to withdraw?

If at any time you change your mind and wish to withdraw, then you may do so immediately by simply leaving. You do not have to give a reason for withdrawing. If you change your mind after completing a series of interviews and wish to withdraw your data, you will be able to do so at any time. However, if you wish to withdraw after the end of the project, you will be able to do so only up until one week after the last interview date. To do so, you will need to contact the lead researcher using the details listed below.

Will I be paid for participating in the research?

Your involvement in this project is voluntary.

What will happen to the information collected as part of the study?

Appendix A.10. Participant information sheet chapter 7

All data will be stored securely on a password protected computer accessible only to the researchers. This data will be stored for 5 years and then destroyed. All data will be kept anonymous through the use of participant identification numbers. The data collected may be used for a professional doctorate thesis, journal publication, conference presentations and may be used in text books or related magazines.

Who has reviewed the study?

To ensure that the project is being conducted in a professional and ethical manner, the project has been approved by the University of Central Lancashire Ethics Committee.

Who can you contact if you have a complaint about the project?

If you have any complaints about the study you may contact the University Officer for Ethics (OfficerforEthics@uclan.ac.uk).

Who can you contact if you have any questions about the project or wish to withdraw my responses?

Please contact the lead researcher: Graham Williams at grahamgwilliams@hotmail.co.uk, research supervisor: Dr Aine MacNamara at AMacNamara1@uclan.ac.uk.

Appendix A.11. Participant consent form chapter 7

Appendix A.11. Participant consent form chapter 7

Investigation: Forecasting and Reflecting on Challenging Experiences on the Talent Pathway

Investigators: Graham Williams (D.Prof Student), Dr Aine MacNamara (Supervisor),

Participant Name: _____

Please read and initial each statement:

1. I have read and understand the subject information sheet. I have had an opportunity to ask questions and these have been answered to my satisfaction. _____
2. I understand that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason. _____
3. I agree to detailed notes being taken during the interview. _____
4. I agree to the recording and transcription of my interview. _____
5. I understand that if I withdraw within a week period post-completion, all associated data will not be used and will be destroyed.
However, if I withdraw after the week period post-completion, it will no longer be possible to remove my data because it will have been rendered anonymous _____
6. I understand that I will be offered an opportunity to review and amend the data collected to ensure its accurate interpretation, to return it within the agreed timeframe, and that failure to return the data will result in it being used as read, within the study. In this scenario, data [*field notes, interviews*] will be encrypted with a password to protect its content. _____
7. I understand that the data [*field notes, interviews*] will be stored for a period of five years from the end of the project and then destroyed. _____
8. I agree to anonymised quotes being used within any publications or presentations resulting from this work. _____
9. I agree to take part in this study. _____

Signature of Participant:

I certify that I have explained to the above individual the nature, purpose and possible risks associated with participation in this research study, have answered any questions that have been raised, and have witnessed the above signature

Signature of Investigator:

Date:

P.T.O.

Appendix A.11. Participant consent form chapter 7

If you wish to receive a copy of the results of this study, please state how you would like to receive these and provide the appropriate contact details.

Would you like a copy of the results from this study? (YES / NO) *

If so, how would you like to receive these results? (POST / EMAIL)*

** Please delete as appropriate*

Please provide the appropriate contact details in the space provided below:

If you have any complaints or concerns about the study you may contact the University Officer for Ethics (OfficerforEthics@uclan.ac.uk).

Appendix A.12. Interview guide chapter 7

COACHES - First induction interview coaches				
Purpose	Question	Prompt	Probes	Analysis
Examination of pathway to now (key incidents, identified critical incidents).	Here is the ‘pathway’ the player has drawn. What do you think?	What was he like when he came into the academy? He said....that....that and that. What do you think? What do you think it helped him the most? How did you help? Do you think this was the same for everyone on your team?		Triangulation of findings
Retrospective examination of the season so far (i.e., the last 6 months) – key incidences, identified critical incidences, reaction to critical incidences	Here is the player’s last 6-month timeline. What do you think?	According to him, these were the biggest ups and downs? What do you think? He said that this was the biggest learning experience. What do you think? How did it affect him?		

		<p>What do you think it helped him the most?</p> <p>How did you help?</p> <p>Was it what you expected from him?</p> <p>Do you think he was prepared for what happened?</p>		
Examination of specific critical incidences	What was the most difficult thing that happened so far this season?	<p>How did it affect him?</p> <p>How did he cope?</p> <p>Can you give me examples?</p> <p>What did he learn from this experience?</p> <p>How did you help?</p> <p>Was this the same as for other players?</p>		
Prospective examination of the next month.	This is what he expects for the next month. What do you think?	<p>What do you think will happen?</p> <p>How well prepared he is for this?</p> <p>How do you think he will manage?</p>		

Appendix A.12. Interview guide chapter 7

		How will you help the player?		
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