

EARLY DEVELOPMENTAL EXPERIENCES OF PROFESSIONAL GOLFERS: A CASE
STUDY FROM THE UK

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ABSTRACT

Various models of talent and player development in sport exist which attempt to describe how to achieve expert levels of performance (e.g. Bloom, 1985; Côté et al., 2007). In addition, research exists which suggests that expert performance can only be attained by practicing in a unique special way with tight constraints and covering a minimum period of time (e.g. Ericsson et al., 1993). This study was designed to explore how a case study of seven golfers developed their skills and acquired enough golf expertise to turn professional. Successful Professional Golfers' Association (PGA) golfers from England were interviewed to explore how they developed and attained their expertise. The research was predominantly interpretive but partially deductive due to the tenets of the theoretical framework used in this study (Côté et al., 2007), which promoted 'Deliberate Practice' theory within it. The data that emerged was inductively analysed and explanations and suggestions given. The findings of this study provide support that expertise in golf is developed over a minimum average period of at least ten years. The process involves phases of development based on attitude to continue. It was discovered that these phases were non-linear as proposed in certain models (e.g. Balyi & Hamilton, 2004; Côté et al., 2007). Development of introductory golfers to reach professional level was found to involve a host of diverse mitigating factors (Turner et al., 2012). It was discovered that golfers experience various developmental activities on their journey. Evidence was provided to show that parents appeared to be the decision makers in the golfer's early involvement; however this was shown to drop in later years with the golfers themselves eventually becoming the decision makers. The decisions golfers make ultimately control and direct their own talent development towards reaching professional level. This thesis provides a small contribution towards the growing body of research relating to the journeys taken by top sportsmen in their development to elite level, in this case golf.

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Chapter 1: INTRODUCTION

1.1 Introduction to the Chapter

Are there common early developmental experiences or coaching programmes that can be applied to turn a young golfer into a professional golfer? Certain professional bodies seem to think so. For instance, the England Golf Partnership has dedicated just under £20 million to county golf partnerships, talent development programmes and coaching over the period 2009-2013 (England Golf, 2009) and large sums of this money have gone towards talent development models, linked to coaching advice (Balyi & Hamilton, 2004). The English Golf 2020 has provided resources to help produce elite golfers. It has created 'The Whole Sport Plan' and one of the elements the plan strives for is 'Being the Best'. English Golf 2020 created a system to promote England amateur golf players 'excel', maximising their capabilities and helping them to perform to their potential.

1.2 Outline of the Study

How young people are socialised into sport has been researched in previous studies (e.g. Côté & Hay, 2002; Kirk & MacPhail, 2003; Toms 2005). In addition developmental models of player and talent development have been created to help explain, describe and prescribe pathways for various participation including ones for elite performance (Balyi & Hamilton, 2004; Côté et al., 2007). Some academics have also attempted to propose theory concerning special ways to practice and become involved to reach expert level (Ericsson et al., 1993; Ericsson 2007; Côté et al., 2007). There is conflicting evidence questioning whether current models can account for the process of talent development (c.f. Bailey et al., 2010). This makes it interesting to consider how county coaching partnerships and national governing bodies spent their resources, especially if they have bought into the beliefs of talent

development theory, which has not been substantiated (Bailey et al., 2010; Ford et al., 2011; Bridge & Toms, 2013). Furthermore evidence also exists questioning whether proposed practice theory can account for how athletes develop their expertise (Baker et al., 2003; Baker et al., 2009).

There are studies which attempt to define talent (Moon, 2003; Abbott & Collins, 2004; Gagné, 2011). In addition there are studies which use terminology associated with talent for example: 'attain excellence' (Vaeyens et al. 2008), 'giftedness' (Gagné, 2004), 'elite' (Hayman et al. 2011) and 'ability' (Gray & Plucker, 2010). However there is a lack of consensus towards the definition of talent (Abbott & Collins, 2004; Vaeyens et al. 2008; Stoszowski, 2011). It has been proposed that the concept of talent requires reconceptualised (Abbott & Collins, 2004) due to the diversity and complexities associated with such a concept. Several academics have suggested that we need to explore talent on many levels namely physical, psychological and sociological (Abbott & Collins, 2004; Stoszowski, 2011). Several academics (Moon, 2003; Gagné, 2011) have attempted to define talent, as explained by (Gagné, 2011, p.11) "Talent designates the outstanding mastery of systematically developed abilities, called competencies (knowledge and skills), in at least one field of human activity to a degree that places a person at least among the top 10% of age peers who are or have been active in that field". Moon, (2003) proposes a view that talent is an exceptional natural ability, which allows them to attain goals. There is a lack of research relating to golf talent development although recently there have been studies completed (Hayman et al., 2011; Stoszowski, 2011). This study contributes towards the body of knowledge in golf from the elite golfer's perspective and this makes this research very original. Examples exist in other sports such as ice hockey (Wall & Côté, 2007) and football (Ward et al. 2007) A small group of elite amateur adolescent golfers were used to examine

which factors were important for them to reach elite level (Hayman et al., 2011). This research contributes towards understanding talent development in golf for amateur golfers and it is an important starting position for researching elite level performers. However the sample group were adolescent amateur golfers, the Hayman et al. (2011) study cannot predict whether these young golfers continue in the sport as golf professionals or continue to perform at top level golf in comparison to their amateur peers. Other scholars have suggested that studying young talented people now to predict future talent is pretty much a waste of time and comparable to a ten percent success rate as has been shown in a large scale study of talented young people (Bloom, 1985). This suggests that it is more likely than not by a factor of ten that the current sample will not end up showing world class performance attributes. This further highlights the difficulty in defining the meaning of talent in golfers and also suggests that studying retrospectively might have been a better research method, which guarantees studying those who have attained the top level instead of speculating (Côté et al., 2005). In another golf study Stoszkowski (2011) investigated the mediators of talent development from the perspective of golf coaches and what they believe is important in the talent development process. This research demonstrated that coaches believe multiple factors influence talent development, this only considers their views instead of asking the golfers themselves, whom were interviewed. There is a gap in the literature to understand the talent development process from a golfer's perspective. Researching this subject in greater detail will influence coach educators and NGB's since they are responsible for the distribution of funds to aid the talent development process for example in coaching. How do these bodies decide who should receive funding or who should be selected for teams? This study seeks to understand the early talent development process in golfers, which can contribute towards a more concise understanding for future golfers and administrators of programmes.

Research highlights that practice is important and indeed essential for to reach elite levels of performance (Bloom, 1985; Ericsson et al., 1993; Law et al., 2007). However, in the sport of golf, research has not properly investigated the developmental process including defining what practice actually is and the best method/s to approach it. This consequently proposes difficulties mainly for golf coaches who wish to promote their golfers to excel. This has considerable implications for golf coaches and golf national governing bodies (the home nations namely Scottish, English, Welsh and Irish Golf Union's and the multiple PGA's) who need to comprehend the early developmental process of golfers so that they can appropriately administer coaching expertise including funding (England Golf, 2009).

1.3 Introduction to the Research Question

Talent development, player development pathways including practice theory and models all attempt to help athletes reach and reproduce extraordinary levels of performance (Ericsson et al., 1993; Balyi & Hamilton., 2004; Côté et al. (2007). However there has not been universal agreement that they do indeed deliver the intended outcome (Baker et al., 2005; Bailey et al., 2010; Ford et al., 2011; Bridge & Toms, 2013).

The 2012 London Olympic Games exhibited world class athletes who competed for medals in twenty six sports. World countries are more aware of the competitive spirit which surrounds the games and invest heavily for future success. In 2016 golf will be included in the Olympic Games for the first time and countries will be preparing to attempt to reproduce extraordinary golf talent in the hope of winning gold. With large amounts of money being spent by England Golf and The England Golf Partnership on golf talent development (England golf, 2009) this study sought to find the answer to the following research question "How do golfers develop over time and acquire enough golf expertise to turn professional?"

In particular this study was interested in the developmental process which culminated in producing tour golf professionals (tour pros). Tour pros compete regularly on a regional, national or international stage and they do this with other tour pros, to try and win monetary prizes. This is generally their main source of income, and the results from which position them in a table with other tour pro's called an Order of Merit. The tour pro with the most amount of money from competing that season is the winner of the Order of Merit.

This study chose to view golf talent development from the player's perspective and it examined what developmental activities were important for golfers including their respective ages. In addition the study was interested in which people helped the players along this pathway and how they facilitated the process. These people were called 'significant others' (Côté et al., 2003; Côté & Fraser-Thomas, 2007; Fraser-Thomas et al., 2008). The study researched these points using the theoretical framework of Côté et al. (2007) called 'The Developmental Model of Sport Participation' (DMSP). In the background of the study research into Ericsson et al., (1993) 'Deliberate Practice' theory was taken into consideration due to it being part of the 'DMSP' framework.

1.4 Methodological Background

Research which exists in talent and player development has involved mainly qualitative research methods, many studies have originated from North America and Canada in the form of retrospective life history research using athletes, parents, siblings and coaches (Bloom, 1985; Côté & Hay; Côté et al., 2007). The current study attempts to add to the body of talent development literature by researching UK Tour PGA golf professionals using Côté et al. (2007) developmental stage framework (DMSP). There has been limited research relating to the developmental process in golfers and more specifically requirements to reach

professional golf level. This study researched sports that the golfers experienced before turning professional including reasons for participation and for drop out. Through retrospective semi-structured interviews (Côté et al., 2005) questions were asked about the players sport life history and experiences to gain a qualitative understanding of the process of reaching professional level golf.

Once the interviews were conducted the data was analysed thematically to identify the key themes and sub themes. This was then examined under the theoretical framework of Côté et al. (2007) and results suggested.

1.5 Chapter Conclusion

This initial chapter provides context to the study and offers relevant background. Chapter two will provide a literature review of relevant talent and player development along with pertinent research concerning how athletes become elite performers. Chapter three will provide an overview of the research methods employed and will highlight the various procedures involved for collecting and analysing the data. Chapter four will present the findings and discuss them relating to sport research and the theoretical frameworks. Chapter five will summarise the research findings, discuss the limitations of the study and comment on the implications including recommendations for future research regarding golf and talent development.

Chapter 2: LITERATURE REVIEW

2.1 Introduction to the Chapter

The purpose of this chapter is to critically review some of the key literature relating to the most influential talent development models of recent times. This will be reviewed in the following order (Bloom, 1985; Côté et al., 2007; Balyi & Hamilton 2004; Kirk & Gorely, 2000). Finally, this review will consider the effect on participation and performance from the psychological, social and environmental perspective since recent studies have indicated that these concepts are of paramount importance (Bailey et al., 2010; Turner et al., 2011).

2.2 General Overview of Talent Development

Models of sport participation and talent development have been created to help guide participants through sport for recreational development and elite development (c.f. Côté, 1999; Balyi & Hamilton, 2004; Côté et al., 2007). These models could be considered as attempting to promote best practice for young people to realise their sporting talents. Models can also act as a template to facilitate parents, coaches and participants in developing talent (Balyi & Hamilton, 2004; Côté et al., 2007). However, evidence suggests that these same models can have the opposite effect by disengaging young people and wasting their talent (Wall & Côté, 2007; Bailey et al., 2010). Suggestions have been put forward explaining how these situations might occur, for example focusing too much and too early on special training techniques, which may lead to drop out (Wall & Côté, 2007).

Baker & Horton (2004) reviewed primary and secondary influences in sport expertise, Stoszkowski (2011) researched eight golf coaches concerning mediators of talent development in golf. Abbott & Collins, 2004 explored talent identification and development

from a psychological perspective in general, these studies have shown the development of talent is mediated by a complicated multiple of factors. Such examples highlight that the developmental process is much more complicated than some models imply (these points will be further discussed later in this chapter). Research has suggested that practice matters and that it is a strong predictor for future expert performance (e.g. as illustrated in; Ericsson et al. 1993; Ward et al., 2007). Evidence has demonstrated that expert sports performers spend more time in practice than non-experts (Baker et al., 2003; Law et al., 2007) and various theories have been put forward describing how athletes should practice to become elite (e.g. Soberlak & Côté, 2003; Ward et al., 2007; Ford et al., 2009). The minimum duration that an athlete requires to reach elite level is another salient point. Some researchers have explored this to suggest it takes around ten years or 10,000 hours (e.g. Ericsson et al., 1993; Baker et al., 2003). However, other studies have suggested it can take significantly less in 4,000 hours (Helsen et al., 1998 & 2000). There does not seem to be a clear indication relating to the minimum time required for athletes to commit themselves and this area of research remains undefined. There are also problems with the methods researchers used to gather information relating to retrospective recall, which might obscure the results, for example including practice hour time after displaying evidence for expertise. In relation to the learning/development environment the following has been identified and suggested as integral to the process of talent development: Psychological advantageous influences and psychological traits (e.g. Orlick & Partington, 1988; Abbott & Collins, 2004; Namara et al., 2010) Self-determination theory (e.g. Ryan & Deci, 2000a, 2000b; Gould et al., 2002) Sociological influences, family finance, emotional and tangible support (e.g. Kirk et al., 1997; Kay, 2000a; Bailey et al., 2010), peer and role model influence (e.g. Côté & Hay, 2002a; Fraser-Thomas & Côté, 2009), luck (e.g. Bailey & Toms, 2010), environmental, hometown size (e.g. Côté et al.,

2006) and ‘Deliberate Practice’ theory (e.g. Ericsson et al., 1993; Ericsson, 2007) This is not an exhaustive list of factors. This literature review will consider and evaluate all these points, so that a broader and more robust understanding of talent development can be attained.

2.3 Models of Sport Participation and Player Development

2.3.1 Bloom’s Model of Talent Development

The work of Bloom (1985) has been key to the awareness of talent development in young people who displayed unusually high levels of demonstrated ability, achievement or skill in the fields of sport, art or science. Bloom’s (1985) original work interviewed one hundred and twenty American expert performers and their parents to understand the family influence on the talent development process. This research gained information relating to the life span of the athletes sport experience. It was discovered that to become an expert in any given field involved sustained help from family and coaches. In addition the findings suggested that the performers displayed a determined work ethic and practiced intensely with the goal of becoming the best. The research discovered three pathways in which all the performers progressed through called ‘Early Years’, ‘Middle Years’ and ‘Later Years’ (Bloom, 1985).

The ‘Early Years’ were characterised by experiencing fun and playful activities. Parents influenced their children to always do their best and display a strong work ethic (Gould et al., 2002). Bloom (1985) discovered that ten percent of young people age twelve or less, who go on to be world class performers show a high level of demonstrated ability, therefore talent can be identified ‘Early’. However by the same analogy this also implies that ninety percent of young people do not stand out from their fellow peer performers, suggesting other factors must be governing the ability to reach expert performance level (Ericsson et al.,

2003; Fraser-Thomas & Côté, 2009; Bailey et al., 2010; Stoszkowski, 2011). This is important to realise when some sports organisations try to identify talent too early, which according to the data from Bloom (1985) could prove futile.

The 'Middle Years' signified a more serious approach for improvement by the performer. At this point the parents employed the help of a 'Master' coach or teacher, who helped with long term systematic learning and technical support (Côté et al., 2007). Parental time together with, emotional and financial support was shown to contribute favourably to their development (Kirk et al., 1997). Monsaas (1985) researched eighteen American tennis players (ten male and eight female) who had been ranked in the world's top ten between the years 1968 and 1979 and found that in the 'Middle Years' the players self-image changed. The performers now viewed themselves as tennis players instead of mere participators. This implied that the young tennis players were now career minded, which has been suggested is a positive psychological state demonstrated and shown to be relevant in many top performers in sport (Gould et al., 2002; McNamara et al., 2010).

The 'Later Years' indicated a total immersion in the activity, which dominated the performer's life in order to become the best. The performer continued to work with a 'Master' coach or teacher, who demanded a total commitment to world class performance and set high level goals for the participant, however, the motivation to improve sat directly with the athlete. Parents were seen to provide a supportive role with much of their personal time donated towards the talent development process. In general the whole process from inception through to completion took between fifteen to twenty years to complete.

Bloom (1985) was one of the first to initiate research concerning the acquisition of expertise which included sport. This has promoted other academics to build theories of their

own, which have further contributed to the body of knowledge as it stands today e.g. Côté (1999) Côté & Hay (2002) and Ericsson et al. (1993). The Bloom (1985) model demonstrates that to become elite requires many years of support, encouragement, nurturing, coaching, motivation and a good training routine. The model falls short in explaining in-depth financing and in-depth training activities required to reach elite status. Lastly the model only examines talent development in North America. Whether this model can be applied and shown to be representative in a UK sport context is questionable due to several differences between the countries for example, in America a scholarship scheme exists where talented athletes are identified and given financial aid to attend college. Financial aid is not part of the UK College / University system, which some researchers have identified causes problems in creating an appropriate talent development environment (Martindale et al., 2007). In addition access to ‘Master’ coaches is part of the American collegiate system; again no such support exists in UK colleges or universities. Lastly, Bloom (1985) does not define what a ‘Master’ coach or teacher actually is, leading to some ambiguity.

2.3.2 Côté’s Developmental Model of Sport Participation (DMSP)

This model pins its core ideology on social psychology with biological age and stage development. The work of Côté (1999) examined in greater depth the dynamics of the family and significant others during talent development (Côté & Fraser-Thomas, 2008). The model, as illustrated in Figure 1 anchored itself on the concepts of ‘Deliberate Play’ and ‘Deliberate Practice’. Building on the work of Bloom et al., (1985), Côté (1999), Côté & Hay (2002) and the revised Côté and Fraser-Thomas (2007) proposed the Developmental Model of Sport Participation.

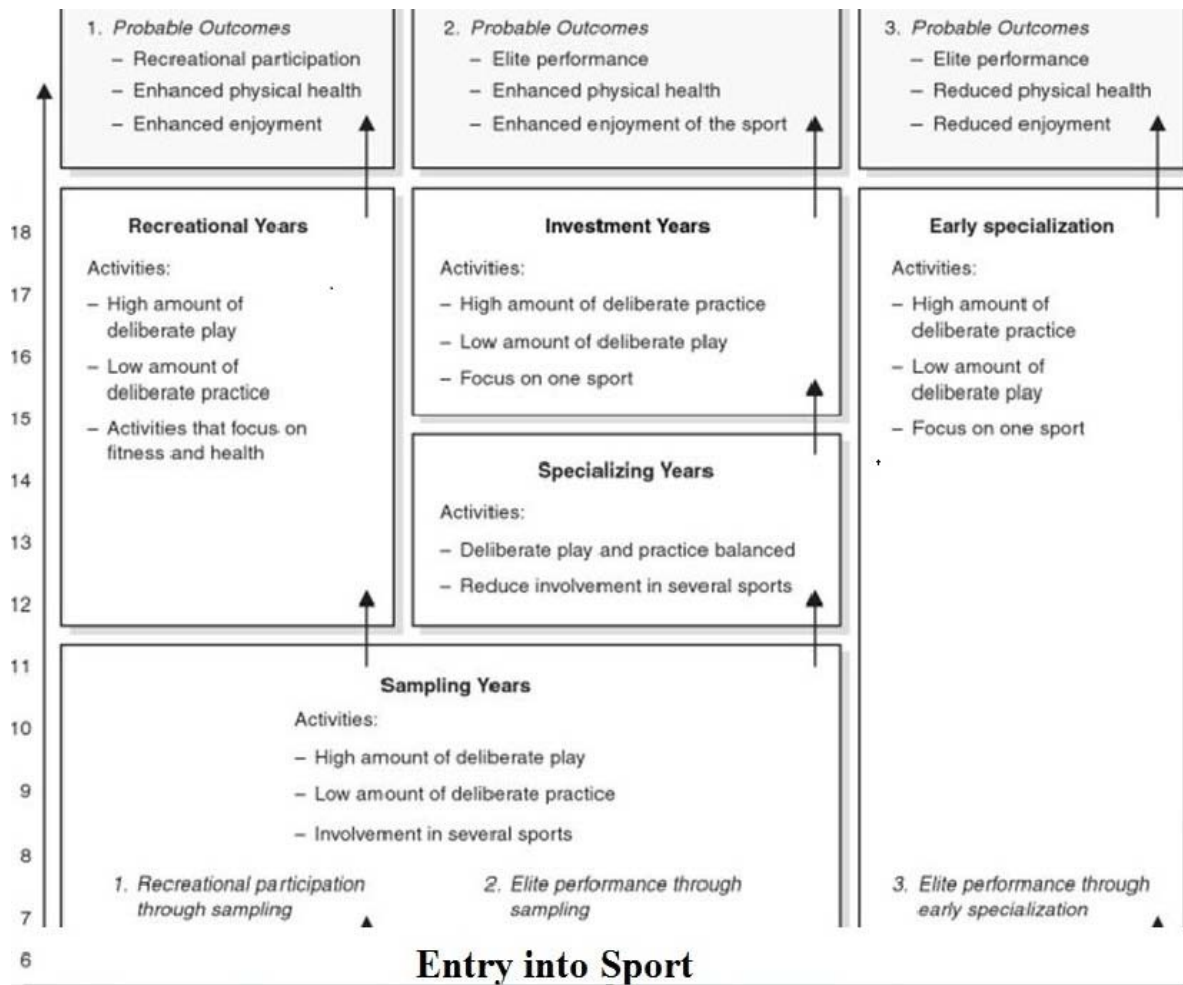


Figure 1- The Developmental Model of Sport Participation (Côté et al., 2007, p.197)

‘DMSP’ describes potential pathways for young people participating in sport. It was developed using data from elite Canadian and Australian athletes from mainly team sports (rowing, basketball, netball and field hockey). The following pathways were identified: 1. Recreational participation through sampling. 2. Elite performance through sampling. 3. Elite performance through early specialisation. This literature review will consider the pathways suggested for elite performance so the recreational participation through sampling route will not be reviewed below.

2.3.2.1 Elite Performance through Sampling

This developmental route describes how to reach elite level performance, including enhanced physical health and greater enjoyment (Côté, 1999; Côté & Hay, 2002; Côté and Fraser-Thomas, 2007). Evidence for this has been demonstrated by several American world and Olympic champions (Durand-Bush & Salmela, 2002) and elite athletes (Berry et al., 2008). The model is described as follows: the sampling stage (six to twelve years old) is characterised by playing numerous sports and experiencing high volumes of ‘Deliberate Play’. These activities had rules which could be adapted to suit all ability levels and offered immediate gratification. These play activities were reported to support the development of fundamental motor skills e.g. running and jumping (Côté, 1999). Enjoyment in sport and having fun are reoccurring themes in sports research (Bengoechea et al., 2004; Garn & Cothran, 2006). Studies suggest these factors to be very important for keeping children engaged (Bloom, 1985; Côté & Hay, 2002) and it has been shown to promote talent to world and Olympic level as shown in Vernacchia et al. (2000). After this stage the young performers may drop out of sport or continue to the specialisation stage (Côté, 1999). The specialisation stage (thirteen to fifteen years old) is characterised by a reduction in the number of sports played to one or two with the focus still remaining fun and exciting. It was noted that a reduction in ‘Deliberate Play’ and an increase in ‘Deliberate Practice’ occurred in equal measure. From the specialisation stage it was suggested that young people can either drop out of sport or continue as a recreational player, which is basically participating in sport without aspiring to be an expert or move on to the investment stage (Côté, 1999). It was noted that families and coaches were instrumental in this elite performance through sampling stage. The investment stage (sixteen to eighteen years old) signified a total commitment to the sport with the intention of becoming an expert performer. ‘Deliberate Play’ activities were significantly

reduced and 'Deliberate Practice' activities increased. When choosing a path to excellence or recreational participation, important decisions need to be made normally by players themselves. Influential others may also affect these decisions which are referred to as 'critical incidents' (Côté and Hay, 2002a). These incidents are liable to occur after a defining experience or prolonged experience in their sport, for example experiencing success (Durand-Bush & Salmela, 2002). Alternatively, negative experiences could terminate participation in that sport, as a result of, for example a poor coach-athlete relationship or injury in the sport (Fraser-Thomas & Côté, 2009). Bailey et al. (2010) suggests that critical incidents can be chronic as well as acute using the term 'critical episodes' to reflect this variation. With respect to 'drop out' 'DMSP' does not suggest how an athlete might return to sport after a critical incident. In addition the model's Canadian context may not be appropriate for application in other sporting geographical environments. In order to truly encapsulate player development an understanding of several domains is necessary, namely biological, psychological and sociological; these play an important role in the development of an athlete (Bailey et al., 2010; Stoszkowski, 2011). It has even been suggested that models which do not consider these areas, possibly by concentrating too much on psychological or physiological methods, are inherently inadequate to provide a clear definition of talent development (Abbott et al., 2005; Ford et al., 2011). Durand-Bush & Salmela (2002) studied factors which contributed to the development and maintenance of athletic performance in ten world and Olympic champions. Three athletes represented team sports (for example ice-hockey) and seven athletes represented individual sports. These were specifically speed skating, wrestling, track, freestyle skiing, synchronised swimming, bobsledding and swimming. These athletes were investigated using semi-structured interviews and the findings suggested that developing sport expertise involved three stages (sampling,

specialising and investment), showing conformity with 'DMSP' (Côté et al., 2007). However, the process was complicated involving a multitude of social and psychological factors, this in contrast to the more simplistic pathway suggested in 'DMSP' (Côté et al., 2007). The factors discovered, which were found important in world and Olympic champions attaining their expertise included, parental support, appropriate coach relationship's, good support staff knowledge, personal athlete personal education, confidence and mental preparation. 'DMSP' (Côté et al., 2007) does not address these factors due to its narrow theoretical framework regarding age and stage development (Bailey et al., 2010). Therefore it fails to relate to a significant number of the potential governing factors that are important relating to attaining elite status (Fraser-Thomas & Côté, 2009). This then suggests that the age and stage 'DMSP' framework might require reworking to encapsulate some of these new found mediators (Stoszkowski, 2011).

2.3.2.2 Elite Performance through Early Specialisation

This developmental route is normally associated where peak performance is necessary before puberty for example, in the sport of gymnastics or rhythmic gymnastics (Law et al., 2007) Evidence was shown to demonstrate that at age twelve international level of ability had been attained. Evidence in support of this pathway exists in several studies and using different sports, both individual (Law et al., 2007) and in team sports (Ward et al., 2007). In a qualitative study using retrospective interview methods and using a purposive sample method (Patton, 2002) twelve rhythmic gymnasts, split between six that had represented Olympic team level and six that represented international team level were chosen. It was found that these gymnasts were competing at international level as young as twelve years old and the Olympic gymnasts were winning at fifteen years old. It was discovered that the gymnasts

participated in very few activities younger than twelve and focused solely in their chosen sport at twelve and older. Although the sample size was small this evidence agrees with the 'Early Specialisation' route proposed in 'DMSP' (Côté et al., 2007). It was also discovered in the study of Law et al. (2007) that there was a side effect to specialising early and reaching Olympic levels of expertise. The gymnasts reported lower health and more injuries than the other group of international level gymnasts. This finding suggests that the 'Early Specialisation' route of 'DMSP' and the coaches associated with it need to carefully consider the training methods employed to look after the wellbeing of their athletes. Baker & Côté (2006) suggests more sampling and 'Deliberate Play' as an alternative, which might lead to more enjoyment and less injuries. However the evidence provided by Law et al. (2007) implies that although fewer injuries could be the outcome it would also inevitably result in being unable to reaching the required state of Olympic level of expertise at age twelve. This implies the potential unhealthy side effects of this type of early training (Law et al., 2007).

This pathway prescribes high levels of 'Deliberate Practice' and low levels of 'Deliberate Play'. Research has suggested that expert performance in sport is the outcome of a sustained engagement in a special type of training called 'Deliberate Practice' (Ericsson et al., 1993; Ericsson, 2007). It is considered a highly structured activity, requiring sustained effort, which is not inherently enjoyable and does not lead to immediate financial or social rewards, the primary goal being to improve existing levels of performance (Ericsson et al., 1993). It was postulated (Ericsson et al., 1993, p.388) that an older person starting 'Deliberate Practice' would not be able to catch up with a younger person who started on the same 'Deliberate Practice' routine. When Ericsson et al. (1993) gives reason as to why 'Deliberate Practice' must be experienced in a nature which is less inherently enjoyable, he highlights work from Bloom (1985), more specifically children's activities are mainly

supervised by coaches (Bloom, 1985). Therefore Ericsson et al. (1993) infers that the children spend a significant amount of time in 'Deliberate Practice'. Given that there is no way to comprehend or analyse the psychological manner (tenets of Deliberate Practice) in which those children or coaches operated it may be questionable whether children in Bloom (1985) study experienced 'Deliberate Practice' at all.

Ericsson et al. (1993, p.368) suggested that the time required to reach expert level is at least ten years or 10,000 hours. Baker et al. (2003a) also agrees with the minimum ten years practice notion. It was discovered that fourteen out of the fifteen expert level athletes experienced a minimum of ten years of sport specific practice but on average it took thirteen years to become elite. These results were not one hundred percent conclusive for the timeframe since one athlete did not conform and managed to represent elite level below the ten year threshold. Maximising the activity involves functioning within three types of constraints, namely; motivational, effort and resource. Ericsson et al. (1993) concluded that regardless of genetic potential, anyone could reach expert levels of performance as long as they participated in appropriate levels of 'Deliberate Practice'. Considerable evidence exists in many different sport domains which emphasises the importance of 'Deliberate Practice' (e.g. field hockey, Helsen et al., 1998; rhythmic gymnastics, Law et al., 2007 and soccer, Ford et al., 2009). In these studies the results suggested that more hours of 'Deliberate Practice' were experienced by experts in sport, as opposed to non-experts. Although there is evidence suggesting a relationship between 'Deliberate Practice' and expert levels of performance there is also conflicting research (Baker et al., 2003; Ford et al., 2009). Ford et al. (2009) used three groups of eleven English soccer players (elite, ex-elite and control) to examine the role of 'Deliberate Practice' and play influencing the sampling phase (aged six to twelve) which influenced career progression in soccer. It was discovered that the governing factor for

reaching expert level was not solely 'Deliberate Practice' (Ericsson et al., 1993) but 'Deliberate Practice' in combination with high levels of play in the primary sport. As a result Ford et al., (2009) proposed an alternative hypothesis called 'Early Engagement', which suggests a rethink on 'Deliberate Practice', namely the balance between how long a performer spends in 'Deliberate Practice' and how much play should accompany it. However the study used a sample of thirty three, of which eleven were a control group. In addition the study did not consider developmental activity between the ages of 13-15 (Specialising phase, Côté et al., 2007) which could have contributed towards the expression of expertise. The two linear routes previously described, which Côté et al. (2007) suggests promote elite level as described in the 'DMSP' are now subjects of contention (Turner et al., 2012). 'DMSP' does not consider transfer between recreational sport and career sport. In addition 'DMSP' does not consider circumstances or even the possibility which relates to the loss of expertise that was once acquired. 'DMSP' presumes that once elite level has been achieved it is permanent. It has been suggested by scholars that the route to elite level is not a linear one (Bailey et al., 2010), instead it has been presented that experts top performance level can oscillate between optimal and sub optimal (Turner et al., 2012). It has been proposed that acquiring expertise is a fluid and cyclical process and those experts have to continually redevelop their competencies. This evidence further challenges the applicability of 'DMSP' in its ability to predict elite or expert level demonstrated ability.

The theory of 'Deliberate Practice' is now under scrutiny by researchers who believe that this type of practice alone, rather than in combination with other developmental activities is not an essential requirement for attaining sport expertise (Hayman et al., 2011). In the Wall & Côté (2007) study of twelve parents (eleven fathers and one mother) of high level minor Canadian ice hockey players results suggested that too much involvement ('Early

Specialisation’) in ‘Deliberate Practice’ caused drop out of the sport all together (Wall & Côté, 2007). This type of practice could be viewed as detrimental to continued participation. However it could be argued that instead of ‘Deliberate Practice’ being the governing factor for drop out, it could be the influence of the coach or the coach influence in combination to ‘Deliberate Practice’. This is because ‘Deliberate Practice’ is normally controlled or prescribed by the coach. It is incompatible to have one without the other in the ‘sampling years’ or ‘specialising years’ (DMSP, Côté et al., 2007) in which the coach oversees activities and developmental training activities (Balyi & Hamilton, 2004). Due to this the influence of the coach must always be considered with ‘Deliberate Practice’ especially in young people. Moreover this early pursuit of excellence could lead to unhealthy consequences for the athletes (e.g. sports injuries, Law et al., 2007; reduced enjoyment in their sport, Baker et al., 2009 and sub optimal environment for elite sport, Côté et al., 2009). Considering the notion that ‘Deliberate Practice’ is not inherently enjoyable, Côté et al. (2007) stated that this pathway leads to reduced enjoyment and reduced physical health. However, Fraser-Thomas et al. (2008) researched the training patterns and the roles of coaches, parents, peers and siblings of twenty adolescent competitive swimmers and discovered that instead of them finding ‘Deliberate Practice, not inherently enjoyable’ it was discovered that some of these swimmers enjoyed ‘Deliberate Practice’. This highlights the ambiguity in analysing what ‘Deliberate Practice’ is and how coaches and athletes assess it. This activity being enjoyable was discovered due to social and environmental details for example; coaches provided support, which facilitated the swimmers transition to a higher level, which the swimmers enjoyed. This instead of being subject to a pressurised environment forced to practice and perform (Wall & Côté, 2007). This evidence demonstrates positive correlation for a supporting environment as well as being able to have the ability to accommodate the training.

In addition the attitude of the club was influential, it was discovered that decisions to delay dry land training actively promoted less vigorous training routines. These were found to be more complimentary and enjoyable for their age group. Durand-Bush & Salmela (2002) highlighted that athletes enjoyed activities which involved technique and tactics instead of physical or dry land components suggesting again that certain elements of 'Deliberate Practice' are enjoyable and some are not. Other researchers studying 'Deliberate Practice' theory have also encountered the same inconsistencies with the principles of the main theory in that many of the athletes found practice and training enjoyable and motivating through all stages of development (e.g. Helsen et al., 1998)

Concerning the minimum duration of time required to participate in 'Deliberate Practice' to become elite, Baker et al (2003) researched sport specific practice and the development of expert decision making in the Australian team sports of netball, basketball and field hockey. With the exception of one athlete, the results showed that ten years of experience and not 10,000 hours or ten years' worth of 'Deliberate Practice' was a prerequisite to expert performance. The results also showed that the number of repeated sport-specific practice sessions experienced by the athletes was significantly lower at 4,000 hours on average. The study of Baker et al. (2003) highlighted a potential flaw in previous studies examining 'Deliberate Practice', which might have extended the true minimum number of 'Deliberate Practice' hours required to reach an expert state. Previous studies (c.f. Helsen et al., 1998 & 2000) have included the number of hours athletes devoted to 'Deliberate Practice' after they have been selected to represent a national team. Baker et al. (2003) argues that at the point when expert level has been reached for example, selection for an international team then no other data is required. This salient point highlights the issues and possible ambiguity surrounding the ability to identify when expertise in sport has been reached consequently

putting into question ‘Deliberate Practice’ hours and other pertinent factors regarding the attainment of expertise.

Finally according to Tucker & Collins (2012), ‘Deliberate Practice theory’ (Ericsson et al., 1993; Ericsson, 1996) is actually un-falsifiable. If an athlete has reached the prerequisite 10,000 hours of ‘Deliberate Practice’ to achieve expert level but has not achieved that state, then simply questioning whether the practice experienced was of the required quality excuses the theory. This evidence suggests that more research is required to explore the concept of ‘Deliberate Practice’ especially in the field of golf.

2.3.3 Istvan Balyi’s Long Term Athletic Development (LTAD)

Istvan Balyi’s Long Term Athletic Development (LTAD) model (as illustrated in Figure 2) is regarded as having been the most influential model of participant development in the UK (Bailey et al., 2010). It has been used by all of the governing bodies relating to sport for example, England Golf (Whole Sport Plan, 2005). It was developed from a double quadrennial periodisation model for Canadian alpine skiers based around competing for two winter Olympic Games (Balyi, 1990).

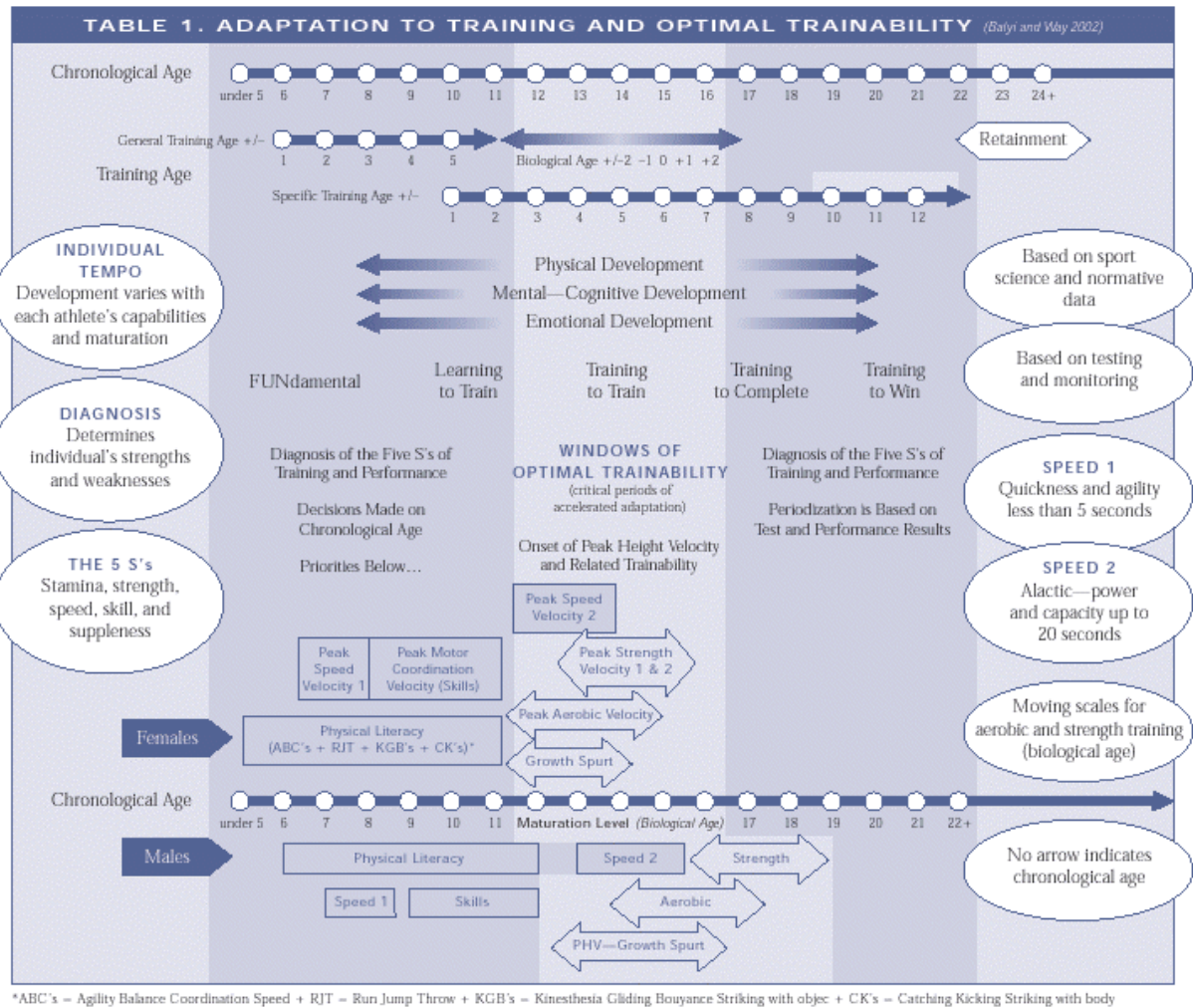


Figure 2 -Adaptation to Training and Optimal Trainability (Balyi & Hamilton, 2004, p.7)

Despite the work of Balyi & Hamilton (2004) not being published and peer reviewed and exposed to the usual quality assured procedures associated with research, the ethos of this model has been adopted and endorsed by many organisations including the England Golf Partnership without critique (England Golf, 2005) as shown in figure 3 and Sports Coach UK which is the central agency for coaching in the UK (Stafford, 2005; Sports Coach UK, 2012).

Balyi presents his 'LTAD' model, as a credible physiologically orientated pathway for young people to realise their talent and maximise their potential, despite little theoretical evidence to suggest it works (Ford et al., 2009 and Collins et al., 2012). The model stresses

the importance of conducting extensive training for ten years similar to other models and training philosophies (Simon & Chase 1973; Bloom, 1985; Ericsson et al., 1993). This is a prescriptive model, which involves venturing through phases relating to age, with the timing of each phase and the nature of it being subjective to the type of sport in which the person is experiencing. These can be 'Early' or 'Late' specialisation sports. 'Early Specialisation' sports are those sports where optimal performance is required before puberty (for example, figure skating and gymnastics) Late-specialisation sports (for example, ice hockey, tennis, hockey and golf) account for practically every other sport, which the 'LTAD' model adopts as a more generalised approach. This model suggests that all participants strive to reach the 'train to win' phase instead of any other route regarding participation, which in itself is questionable. 'LTAD' considers sensitive development periods which Balyi & Hamilton (2004) refer to as "windows of opportunity". Two of these periods are said to exist, which relate to chronological age. The first "window" is said to exist in boys and girls between the ages of seven and nine. There is a difference between boys and girls in the second proposed "window". In boys the "window" occurs between the ages of thirteen to fifteen and in girls between the ages of eleven to thirteen. Considering this second "window" is different in boys and girls the 'LTAD' model accounts for maturational changes. The concept of "windows of opportunity" are said to be imperative to accelerate and improve the physical state of the athlete.

Similarly to the 'DMSP', the 'LTAD' model prescribes information about one domain namely physiology or athletic prowess in order to promote personal performance and winning. It has already been discussed that focusing narrowly on one domain is problematic. 'LTAD', in solely focusing on the physiological attributes required to become elite also misses the same point that multiple factors influence talent development (Ford et al., 2009;

Bailey et al., 2010; Collins et al., 2012). In addition, the environment in which the athlete develops has been suggested to be important (Martindale et al., 2007; Stoszkowski, 2011). Stoszkowski (2011) researched the perceptions of PGA golf coaches to analyse which factors they proposed to be most important in the development of talent in young golfers. It was discovered that in addition to the physical domain, psychological, environmental and sociological mediators were found important, however the sample size was eight and so not overly representative. The selection criteria used by Stoszkowski (2011) were the golf coaches were required to have a minimum of ten years' experience, which is a topic of contention if we are to infer they are experienced based on the '10 year rule' (Simon & Chase, 1973). To reach top levels of performance coaches, players and parents must consider several domains including physiology, psychology, sociology and the environment in which development occurs (Bailey et al., 2010). In light of what we know the influence of sociology should not be excluded, since all learning is socially situated, which in turn must reflect the background of the participants. Any model which does not do this will fail to be effective or accurate (Bailey et al., 2010). Ford et al., (2011) examined the physiological evidence and application of the 'LTAD' model in the UK and concluded that there were no grounds to support it. There are issues relating to 'LTAD' terminology, which will be discussed shortly but considering that the 'LTAD' model is intended to be used by coaches who have the potential to heavily influence talent development (Wall & Côté, 2007; Fraser-Thomas & Côté, 2009) it is imperative that the terminology is coherent. Take for example 'windows of opportunity' this suggests that these periods can be opened or closed. Ford et al. (2011) mentions that the period remains open through childhood and into adulthood, this suggestion makes it confusing for coaches instead of exemplary. There is little evidence to support 'LTAD' because there are many physiological factors that affect performance. Improving the

physical state and performance of the athlete involves many domain areas as suggested by Bailey et al. (2010) and sub domains for example, speed, strength, power, etc. (Bailey & Hamilton, 2004). Take for example speed, to identify a single method responsible for this during childhood is doubtful due to biological, neural and biomechanical factors that will affect speed (Ford et al., 2011). In addition these factors may develop uniquely in individuals posing problems for the linear ‘LTAD’ model. There is a lack of longitudinal evidence supporting the basis for the ‘LTAD’ model and it has been suggested that exploring the model could also be near impossible due to the complexity involved (Ford et al., 2011). Lastly concerning ‘windows of opportunity’ there is also a lack of evidence linking athletic performance with trainability against ontological development (Ford et al., 2011).

Supposing that a young athlete has the physical attributes to develop their talent in sport, this model might not guarantee a successful outcome (Collins et al., 2012). This is because in addition to the physical attributes required to succeed in sport other determinants are required, such as commitment, motivation and the availability of development opportunities (Abbott & Collins; Baker & Horton, 2004; Bailey et al., 2010).

Early Specialization Model	Late Specialization Model
1. Training to Train stage	1. FUNdamental stage
2. Training to Compete	2. Learning to Train
3. Training to Win	3. Training to Train
4. Retirement / retainment	4. Training to Compete
	5. Training to Win
	6. Retirement / retainment

Table 1 - Stages of Development for Early and Late Specialisation Sports, (Balyi & Hamilton, 2004, p.2)

2.3.4 The Pyramid Model of Sports Development

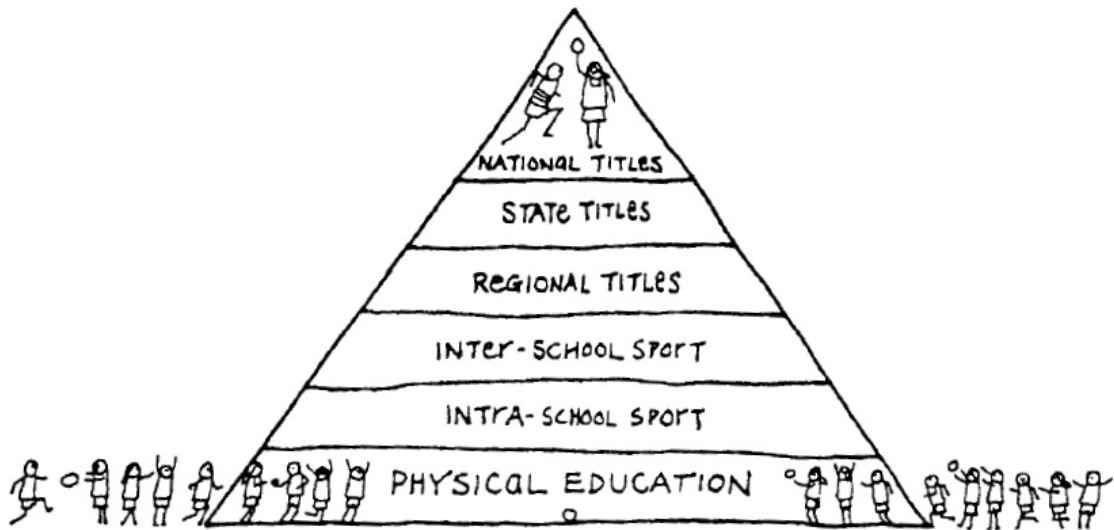


Figure 3 - The Pyramid Model of Sport Development (Kirk & Gorely, 2000, p.122)

Adapted from (Tinning et al., 1993, p.88)

This model as illustrated in Figure 3 starts with a broad base of participants, which decreases as you rise up through the levels. At each stage the level of performance increases whilst the number of participants decreases regardless of the participant's ability. Only a certain number of performers can represent each stage since this is built into the model's framework. It has been suggested that there are other ways of producing high level competition systems without relying on a broad participation base (Green, 2005; Bailey et al., 2010). A talented athlete Herschel Walker represented several teams in the NFL American Football league but was also a 5th degree black belt in Tae Kwon Do and finished 7th in the 1992 Winter Olympics in the two man bobsled. The existence of these athletes spoils the ideology that a broad base of participants is required for the model to work. These athletes are evidence that it is possible to borrow or recruit talent from other sports, which suggests flaws in the model's capacity to explain a systematic upward sequential flow from the base (Green, 2005). In addition to the critique of the singular direction of the model scholars have

also identified that contextual factors heavily influence the pyramid model of talent development. In the sport of Volleyball it was discovered that selection for the American Olympic team revolved around biased mediators for example athlete's location. Evidence was provided to suggest that in order to get identified as talented, athletes had to firstly be notified of a trial then travel hundreds of miles at their own expense to attend. In addition they were expected to pay an entry fee for the privilege. Such inhibiting factors have been shown to negatively affect participation in sport (Kay, 2000a, 2000b, 2003). It cannot be assumed that every athlete had the financial ability to attend the talent identification gatherings and therefore this model fails to address socioeconomic status of the athlete and their family. Club membership was an essential prerequisite of selection, those outside the club structure, for example high school players were totally excluded, undermining the quality at the base of this model. Quality of helper volunteers was another inhibiting factor, it was discovered that in Volleyball there exists a network of part time volunteers, which bridge the gap between Olympic coaches and the players. Olympic coaches disseminated information relating to talent identification (TI) trials via an erratic network of volunteers. It was discovered that in many instances due to the burdens of the volunteers' personal lives many potential athletes were excluded from receiving the TI information. The findings from this research suggest that many mitigating factors exist, which the pyramid model of development fails to identify. Bailey et al. (2010) suggests that considering only a certain number can represent each level this model represents 'talent elimination' instead of a model that promotes talent development. This model assumes that progress to higher levels is based on ability but as suggested participation is influenced by a number of factors namely, psychosocial (Green, 2005), environmental (Turner et al., 2012), socioeconomic (Collins, 2004) and luck (Green, 1992; Bailey & Toms, 2010). Some of these factors exclude

participation and development instead of promote it (Kirk & Gorely, 2000). It has been suggested that if such pyramid models are to be used particular thought must be given to ethics, education and the development of the individual (Kirk & Gorely, 2000). This suggests that the model as illustrated in Figure 3. requires further work in order to address all participants entering the model. Many sports have used this model including the sport of golf. The English Golf Union (EGU) has previously adopted it, as illustrated in Figure 4. Similar to evidence provided in previous critique’s regarding models (i.e. Bloom’s Model of Talent Development, ‘DMSP’ and ‘LTAD’) a myriad of factors affect the development of talent. Any model which proposes to prescribe or describe how to develop such talent must consider potential developmental pathways up, across, exit, entry and re entry in light of associated evidence suggested in academic studies (Green, 1992; Bailey et al., 2010).

**4. ‘THE WHOLE PICTURE’
- PLAYER PATHWAY AND PROGRAMMES**

The first ever player pathway in golf that will impact on people playing the game, as well as a series of ‘Underpinning Programmes’ which will provide a firm foundation on which to develop, maintain and grow the game:

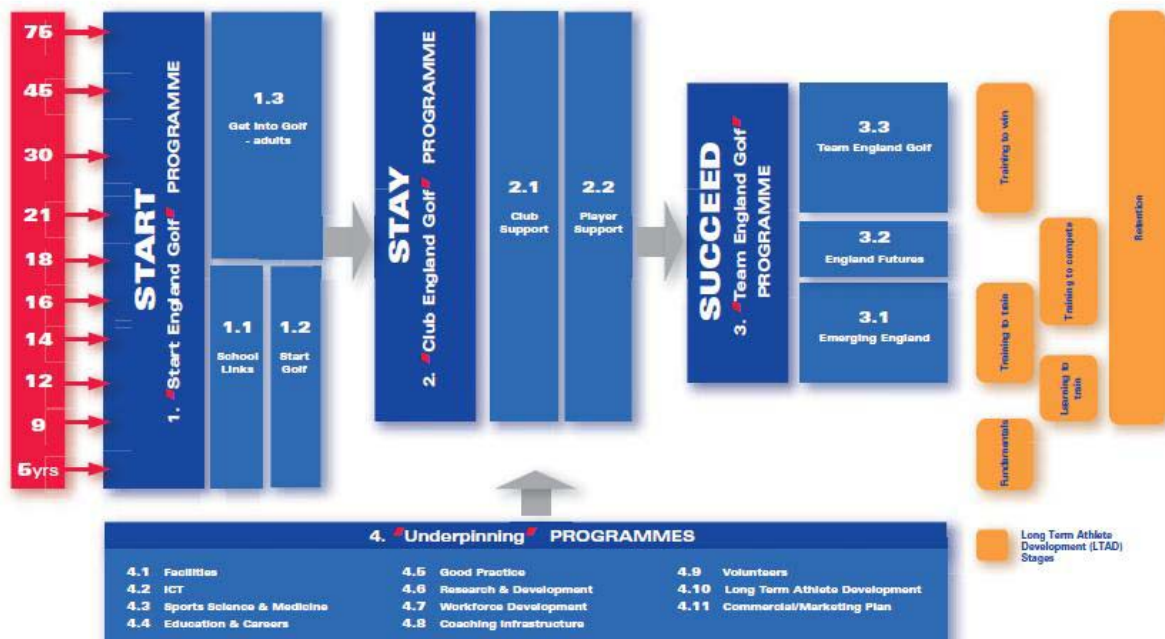


Figure 4 – The Whole Picture – Player Pathway and Programmes (England Golf – Whole Sport Plan, 2005, p.5)

2.4 Domains of Talent Development

Participant development in sport has been reviewed by Bailey et al. (2010) who mention that, “Sports participation, like any other aspect of human development, is influenced by a host of integrating factors.” (Bailey et al., 2010, p.6). Participant development has also been researched more recently by Collins et al. (2012), who agree with Bailey et al. (2010) and suggest that a multidimensional approach should be considered towards sport and participation. In addition, it has been proposed that sport participation and sport talent development are interlinked and should be treated accordingly, instead of a twin track approach treating each concept separately. Scholars propose that instead of considering models of development focused on one domain for example psychology (‘DMSP’, Côté et al., 2007) a more holistic view should be considered using several domains, named biopsychosocial components (Collins et al., 2012). It has been suggested that these components interact with each other regarding development and becomes more or less significant as the age of the participant increases. Simonton (1999) also highlighted the involvement of multiple influences as time passes. These have been suggested as genetic, social and psychological factors but instead of them being additive in nature as suggested by Collins et al. (2012). Simonton (1999) suggests that these factors act in a multiplicative manner. However, Simonton (1999) does not suggest an exhaustive list of factors, which govern talent development and so further research is needed to explore whether talent emerges in this way.

2.4.1 Psychological Domain of Talent Development

There have been many studies researching psychological skills of talented athletes including world and Olympic champions (Gould et al., 2002; Jones et al., 2007). Strong evidence has been proposed relating to psychological states or attributes beneficial for the attainment of expertise and for the ability to win professional events. Baker & Horton, (2004) suggests that psychological factors are primary influences that act on development and directly influence development. The following factors have all been identified as important concerning the talent development process: motivation more specifically self-determination theory (Ryan & Deci, 2000a), commitment, imagery and self-confidence (Orlick & Partington, 1988), focus or concentration, refocus ability, preparation for competition (Janelle & Hillman, 2003), mental toughness and attitude (Jones et al., 2007) and dedication, strong work ethic, coach ability, resilience and optimism (Gould et al., 2002). An athlete not only requires the skills to express expertise but also those psychological skills of motivation to get there. Without motivation, it is challenging to see how an athlete can persevere to reach elite level. Once this state is achieved, then other skills are necessary to display the talents, for example; focus and concentration to block out distractions. However despite this strong evidence, none of the studies have been able to conclusively give an account which fully explains talent development.

2.4.2 Social Domain of Talent Development

This literature review considers social and environmental factors as separate factors but in many instances there is commonality or overlap. For example the place in which a child spends their childhood is an environmental factor however that factor is solely related to the parents, who chose to raise them, which is a social factor.

2.4.2.1 The Family

A vast array of research exists documenting the importance of the family in the talent development process, for example; Côté & Hay (2002), Gould et al. (2002), Toms et al. (2008) and Morgan & Giacobbi (2006). Young people have been shown to be introduced into sport by their family (e.g. Bloom, 1985; Côté & Hay, 2002; Hayman et al., 2011). This is typically the case when sport plays a large role in the lives of the families as shown in Kirk & MacPhail (2003a). The role of the family is crucial for supporting young people and it also serves to facilitate positive early learning experiences, which Kirk et al. (1997) believes is a necessary component for prolonged participation. In addition to this there have been other important factors which might contribute favourably towards prolonged participation but might occur later in life for example, a long term commitment to the development process (Bailey et al., 2010). This suggests that prolonged participation requires a more mature and committed approach in combination with positive early learning experiences.

Participating in sport outside of the school curriculum comes with a financial cost which can vary enormously depending on the sport and the level of involvement. Providing financial support (socioeconomic status) has proven to be an essential role for families of talented young people (e.g. Vernacchia et al., 2000; Jowett & Timson-Katchis, 2005; Morgan & Giacobbi, 2006) and it has been suggested that funding needs to be considered as an integral part of talent development in sport (Martindale et al., 2005). Wolfenden & Holt (2005) interviewed elite junior players, their parents and coaches to examine talent development in tennis. It was discovered that participation and associated travel costs for the average UK family can leave them out of pocket even with funding from the Lawn Tennis Association. Similar findings have been highlighted from the work of Kirk et al., (1997)

where it was discovered that parents of Australian young hockey players spent between \$5000 and \$16000 per year. This covered various fees, travel, equipment and tuition, not to mention the vast time commitment given by the family regarding transportation. Not all families are capable of supporting their children to engage in sport in this fashion especially one parent families on a low income. This may be due to their low socio economic status and lack of disposable income as shown in studies by Kay (2000a, 2000b, 2003) and Collins (2004). These studies have shown the importance of the family's economic status as governing factor for participation; those that cannot afford sport are usually those in the lower socio-economic groups and consequently are clearly disadvantaged and potential talent lost forever.

Providing emotional support and offering help in learning the rules and etiquette's of games (informational support) are all things that parents can support. This can motivate their children and help foster fun environments in which to learn in (Côté & Hay, 2002b; Wolfendon & Holt, 2005). This was especially apparent when athletes experienced setbacks such as sustaining injury. It is arguable that a fun environment is one of the most important support offerings, considering a poor learning environment may contribute towards drop out (Côté et al., 2003; Wall & Côté, 2007; Fraser-Thomas et al, 2008). Informational support has been shown to be important in the early stages of development (Côté & Hay, 2002a), particularly parent support in providing their children with general information about sport and more specific information about competitions (e.g. Jowett & Timson-Katchis, 2005).

Not all support provided by families was perceived by athletes to be beneficial (e.g. Fraser-Thomas & Côté, 2009). Pushy parents pressurise athletes to perform and demand that they stay in sport. Côté (1999) in his study of elite junior tennis players and rowers found that some younger siblings were found to be jealous of their older sibling. Resentment was

expressed because the younger of the two perceived an unfair parental allocation of resources. Morgan & Giacobbi (2006) interviewed eight American NCAA Division 1 collegiate athletes, twelve parents and six coaches and they discovered the opposite view. Instead of feelings of resentment they discovered that sibling relationships were supportive. These results highlight that the dynamics of families are complicated and that family members do influence the talent development process both positively and negatively. Coaching has been shown to be a very integral part of talent development (Bloom, 1985) and parents are active employers of coaches to help their children. However, parents can also terminate this help if they do not approve of the coach-athlete relationship for whatever reason (Bloom, 1985).

2.4.2.2 Country Cultural Influence

Evidence exists (Siedentop, 2002) suggesting that the country in which you were born influences how you view sport and what motivates you to participate (Ryan & Deci, 2000). Yan & McCullagh (2004) looked at differences in motivation for participation in physical activities amongst Chinese, American Chinese and American young people aged twelve to sixteen. American and Chinese cultures vary substantially; these factors can influence young people's moral, social, cognitive and motor development (Yan & Mc Cullagh, 2004). It is these factors which might explain why the Chinese participants were less physically active and alternatively considering American culture would explain why they were more active. The findings confirmed that clear socio cultural differences existed and that they were responsible for several types of motivation for involvement in sport. The results suggested that Chinese participants are motivated to participate in sport for social well-being. American participants are motivated to participate mainly due for competition and skill improvement.

A review article by Baker et al., (2003) mentions that cultural factors are noteworthy but often disregarded in elite talent development. Further information regarding influences on sport expertise is provided in a review paper by Baker & Horton (2004). It was stated that in Canada there has been a substantial investment to promote ice hockey. In addition, the country has numerous large outdoor and indoor areas to practice the sport all year round. Lastly, Canada has a large club system for ice hockey which begins at a young age and public money is available to support the sport. Baker & Horton (2004) mentions that this societal support can provide important extrinsic motivation for continued involvement. To demonstrate the cultural influence on ice hockey participation it was calculated that Canada has 3.5 times more children playing ice hockey than the following countries added together, Russia, Sweden, Finland, The Czech Republic and Slovakia (Robinson, 1998).

2.4.2.3 Sports Club Culture

Previous research into sports club culture has suggested that young people's involvement in sport at club level has a predominantly positive effect on talent development (MacPhail & Kirk, 2006). However there is also evidence to the contrary in that sports clubs can be damaging to performers depending on the ethos of the club and those associated with it, namely the abuse of 'Deliberate Practice' (Zevenbergen et al., 2002; Gould et al., 2002; Law et al., 2007; Wall & Côté, 2007).

The sport club can facilitate a positive social environment (Kirk et al., 1997; Toms, 2005) for participants to make new relationships, parental help to organise competitions, light parental coaching, provides access to coaches and in some cases at no cost, learn rules of sport, goal setting exercises, experience golf on the golf course for the first time (nine holes) receive achievement awards and learn etiquette (Zevenbergen et al., 2002: Kirk & MacPhail,

2003; MacPhail & Kirk, 2006). The sports club can be an ideal place to learn the basics and rules of sport with access to a whole host of significant others (Kirk & MacPhail, 2003). Making friends, playing and even more importantly competing against each other in competition/ rivalry were suggested to be the promoters for continued participation to higher levels in the specialising phase for some athletes (MacPhail & Kirk, 2006). Experiencing success was seen as a driver for future participation and the study mentions bringing this about by enjoyment. This would imply that each participant must perceive what success is for them and so questions should be asked about what the athletes wish to get out of their sport so significant offers may help in the development of each participant. It was discovered that young athletes while increasing their participation in athletics were also playing on average a total of three sports. The coaches understood this scenario and made up individual training plans to assist with each athlete's progress. This highlights the values and skills that a coach can bring at this stage of development. In an Australian golf club study of Zevenbergen et al. (2002) junior golfers aged eight to fourteen managed to receive free golf coaching at the club, organise meets to learn etiquette and how to play holes of golf early in the morning. The study discussed how competitions were facilitated, namely whoever lost would be the one who collected the practice/ competition golf balls as a sort of punishment. However the study does not highlight if these young juniors found the collecting of golf balls fun or not, which has implications on whether this really is a punishment.

There were found to be certain negative aspects relating to sports club culture. In the Australian golf study of Zevenbergen et al. (2002) it was suggested that if the family background of the young golfer was not congruent with the ethos of the golf club then the young golfer would find it harder to integrate and participate. However evidence was from one study alone and considering there are thousands of golf clubs in the world it seems

inappropriate to stigmatise every golf club with this ideology. The Zevengergen et al. (2002) study also does not consider that there are municipal golf club memberships available that do not have a junior organiser or even a golf coach present to be able to administer the habitus presented in their study. Another consideration is golf clubs have evolved a lot since 2002 and are more junior friendly with initiatives from the likes of 'Golf Roots' formerly known as 'The Golf Foundation' in England and 'Golf Mark' in Scotland, which promotes junior golf and assesses the appropriateness of golf clubs to promote juniors. Lastly this golf study mentioned that a trainee golf coach was used, which by definition shows inexperience. So to review a golf coaching session based on a novice coach is liable to critique since the majority of golf coaches in developed golf nations are qualified and qualified coaches would predictably offer a better level of coaching. Other negative aspects of sport club culture are pushy parents, poor coaches, strong training routines enforced on performers causing drop out and injuries (Gould et al., 2002; Kirk & MacPhail, 2006; Law et al., 2007; Wall & Côté, 2007). Some coaches were shown to promote their own ideals on their athletes, for example in the athletics club (Kirk & MacPhail, 2006) conflicts of interest materialised between athletes wishing to enjoying themselves and coaches pushing them to exhibit a higher level of athleticism. This suggests that if the ideals of the coaches are not congruent with the ideals of the athletes, this can create resentment. Again evidence from this is based from only one athletics club but gives an insight into relationships between the participants, parents, coaches and club officials.

2.4.3 Environmental Domain of Talent Development

2.4.3.1 Coaching/ Learning

Due to the dynamic nature of talent development and considering that young people are unique requiring individualised attention, the coach and the coaching environment plays an extremely important role in facilitating the talent development process (Bloom, 1985; Côté, 2002; Martindale et al., 2005 Turner et al., 2012). Coaches have been shown to offer support to young people and athletes in many different forms, namely educational, confidence building, motivation and goal setting (Martin et al., 1999; Gould et al., 2002 Martindale et al., 2005), friendship (Bloom, 1985; Gould et al., 2002; Martin et al., 1999), help in creating a desirable working environment (Martindale et al., 2005), acting as role models (Bloom, 1985; Gould et al., 2002; Wolfedon & Holt, 2005) and displaying a democratic coaching style, especially in older athletes or athletes nearing expert level (Martin et al., 1999; Wolfenden & Holt, 2005).

Fraser-Thomas & Côté, (2009) interviewed twenty two adolescent competitive swimmers to find out their opinions on how coaches affected their development. The findings provided evidence that the coaches affected their development positively and negatively. Most of the coaches were shown to be good communicators, positive role models, confidence builders and offered great technical support. However, some athletes found their coaches to be poor communicators, intimidating, displayed a poor work ethic, showed favouritism and demonstrated inappropriate behaviour. This evidence suggests that coaches can directly hinder the progress and enjoyment of athletes and the evidence highlights the importance of choosing or being associated with good quality coaches. This evidence might also suggest the need for some sort of quality check in order to identify culpable coaches (Fraser-Thomas &

Côté, 2009). There is also evidence to suggest that coaches can also indirectly negatively affect talent development. Consider those coaches who promote Ericsson's theory concerning 'Deliberate Practice'. It has been shown that consequences of this are increased injuries, drop out of sport and reduced enjoyment (Law et al., 2007; Wall & Côté, 2007). It could be argued that a coach's ignorance of these consequences could spoil the chances of many to reach their potential. Familiarity with regard to the coach may be another aspect of what contributes towards talent development; Toms (2005) in his ethnography research on eleven to thirteen age cricket players and the people involved either directly or indirectly suggests the notion of 'the family club'. Toms (2005) discussed how young people can build positive relationships with coaches when the whole setting is similar to family life.

Coaches can affect the child's beliefs, attitudes and confidence in a positive manner (Bloom, 1985; Gould et al., 2002; Martindale et al., 2005). Coaches can act as positive role models for talent development (Bloom, 1985; Jowett & Timson-Katchis, 2005) by encouraging, motivating and coordinating young people and athletes to practice, which has been demonstrated to be essential in many sports in acquiring expertise (Ericsson et al., 1993; Law et al., 2007; Ford et al., 2009). It has been suggested in a relatively large study of one hundred and twenty three Canadian young people aged twelve to sixteen that enjoyment should be the main focus along with developing young people's personal competencies in physical and social skill in sport (Strachan et al., 2009). Scholars suggest that by allowing young people to enjoy their sport more and discover their role within it is a healthier route than for example the 'Early Specialisation' route (Côté et al., 2007) and its potential risks mentioned prior in this coaching section. In view of this coaches need to be aware of the potential and consequences of their coaching routines. A focus on early development instead of early success has been mentioned and suggested by many scholars (Martindale et al., 2005;

Bailey et al., 2010). Other studies have even suggested that top athletes can lose their expertise and have to redevelop it (Turner et al., 2012). Considering the complexities discussed in terms of talent development and according to Bailey et al. (2010) coaches need to be aware of the requirements of their sport, appropriate development at the appropriate age to demonstrate an ethical role model status. Lastly it was suggested from a study of athletes, coaches could be better organised to identify talent and that the coaches mentioned that they had no formal method for identifying it (MacPhail & Kirk, 2006). Studies have shown and suggested that talent identification at a young age does not guarantee a talented champion (Bloom, 1985). Instead research is now proposing alternatives for example talent development (Abbott & Collins, 2004; Bailey et al., 2010).

There is a dichotomy in current sport coaching literature, namely some studies exist to show that 'Early Specialisation' is a prerequisite for developing talent (Law et al., 2007) however other studies suggest that 'Late Specialisation' should be considered to allow young people a chance to enjoy their sport and develop in that form (Strachan et al., 2009). If it is true that certain sports require 'Early Specialisation' to become elite and this is ignored then some athletes will never be able to be competitive as their opportunity would indefinitely have passed. This highlights the need for coaches to understand the consequences of bad coaching etiquette, bad coaching routines and in addition a need for the coach and national governing bodies to identify which sports needs early devotion or not.

There are a few studies concerning learning basic motor skills in golf (putting) that propose that skills can be learned without rules and knowledge (Masters, 1992; Maxwell et al., 2000) called implicit learning (in essence learning without the presence of a coach). Explicit learning in contrast refers to the type of learning, which includes knowledge and rules

(Stadler & Frensch, 1998). It was demonstrated in a study by Masters (1992) that novice golfers who learned to putt using implicit methods could master a putting skill under pressure better than those who had received explicit learning (coaching). The notion of learning implicitly or explicitly at beginner level golf, namely putting from three metres with no slopes has also been researched by Maxwell et al. (2000). Twenty seven paid volunteers, split into three groups and aged twenty to twenty nine were given three thousand attempts (twelve sessions of fifty) to hole putts. However the study did not differentiate between implicit learners and explicit learners. It should be noted that a standard putter length was used with no details given on the size of the putter grip, if it was right handed or left handed or if the putter was a male or female putter. The study also did not highlight how tall the volunteers were or the size of their hands or if they were male or female. Without using appropriate equipment, in this case the proper sized putter it highlights that potentially some volunteers could use the putter effectively and others could not and with this suggests flaws in methodology. Future studies need to firstly assess the participants anatomical parameters (PGA Professionals call this custom fitting) then appropriately allocate the equipment, which can be used to do the task and more appropriately the research.

2.4.3.2. School Influence

Schools can influence the type and quantity of experience a pupil receives regarding physical activity and sport. More specifically the school a pupil attends and the location may reflect the pupil's family socioeconomic status. Dagkas & Stathi (2007) selected two schools from the Midlands region of the UK to research socioeconomic status and how it influences extracurricular physical activity. They employed a methodology used by Shuttleworth (1995) and MacDonald et al. (2004) to help identify social class, based on whether free meals were

offered at school (school B) or not (school A). Results showed that children who attended school A reported higher levels of participation in physical activity and participated in a wider variety of activities including sports than school B. School A pupils benefited from sampling cricket, tennis, rowing, sailing and skateboarding. In contrast pupils attending school B were limited to participating in just football and netball. The study stressed that involvement in physical activity correlated to the social class of the family and their economic status (Kirk et al., 1997; Kay, 2003). This research suggests that resources are required in socially deprived areas to compensate for low participation levels. This is an area for local government to address in order to raise participation levels and allow participants to sample a variety of sports during adolescence.

Hastie et al. (1999) conducted a study examining the practices and experiences of American elementary school physical education (PE) teachers in their efforts to provide quality PE. Elementary school is the equivalent to the UK primary school and the teachers in this study taught between kinder garden age and grade four. The findings showed that sometimes class sizes were as high as seventy five and the teachers reported that this reduced the early learning experience children receive. Kirk (2005) as mentioned suggests that positive early learning experiences are essential for prolonged participation in sport and continues that these experiences should begin in primary school and not in secondary school. In addition the resources offered were restricted which the teachers explained and made purchasing equipment problematic. These studies highlight that a child's experience is influenced by the school. It could even suggest a bias towards private education schools (Rowley & Baxter-Jones, 1992; Bailey et al., 2010). Studies suggest that 'Early Diversification' at young ages (eighteen years old and younger, DMSP Côté et al., 2007) is important for future participation in sport. In addition studies have shown this idea can lead

to high levels of performance before adulthood (Bridge & Toms, 2013). Considering that at age sixteen it is compulsory to attend school in the UK, this can influence 'Early Diversification' but only in schools that provide resources sympathetic to all social classes. The evidence provided here has shown that schooling plays a role in determining how much sport and what types of sport young people experience and that the type of school can influence not only participation but the quality of the participation for example by providing high quality professional coaches (Bailey et al., 2010).

2.4.4 Luck

It has been suggested that the process of talent development combines a complex series of interactions (Bailey et al., 2010; Stoszkowski, 2011; Gagné, 2011). Scholars have mentioned that identifying all the factors involved with talent development and considering them for the benefit of the athlete's talent development can neutralise or minimise the influence of luck (Bailey et al., 2010). Socioeconomic status of the family is related to luck (Bailey, 2007) after all no one can control which family they will be born into. If you are lucky to be born into a family with wealth and couple this with a private education, then children from these families may gain an advantage in comparison to children from less wealthy families (Dagkas & Stathi, 2007). In the sport of golf, the following costs are associated, golf clubs, golf balls, green fees, competition entry fees, travel and memberships. If the family cannot afford these luxuries and there is no access to funding then golf will be out of reach. This analogy applies to other sports in which the costs are high for participation (Kirk et al., 1997; Kay, 2003; Bailey & Toms, 2010; Bailey et al., 2010). In addition no one can control the genes that they will receive or the luck of a favourable genotype (Gagné, 2011) this is again family related but in the case of a genotype this is a genetic factor instead

of an environmental or social one. Scholars have pointed out that examples such as family wealth can be strictly reduced down to 'blind luck' (Bailey, 2007). This creates problems when we consider that there have been models of talent development that do not consider such factors. In addition there has been an allocation of public funds associated with the development of talent, for example the 'LTAD' model (Balyi & Hamilton, 2004) and elite sport funding associated with the 2012 Olympic Games, amounting to £304,400,000 (DCMS, 2008).

When considering biological luck in professional sports it has been suggested that a relationship exists between ethnicity and your chances of making it onto the professional ranks (Gagné, 2011). Seventy five percent of all professional basketball players and sixty seven percent of all professional American football players are black (Gagné, 2011). However in the sport of golf it appears that if you are black you will be under represented in Europe (PGA European Tour, 2012) and also in the world (World Golf Ranking, 2013). Out of fifty competing European Tour golf professionals no black golfers or golfers from African descent were present. Only one black American golfer named Tiger Woods (father is black American, mother is Thai) is currently in the world top fifty golfers. This suggests that your ethnicity may influence your chances of reaching professional level sport both positively or negatively depending on the sport and race in question.

Evidence exists to suggest that where you are born and the size of your town can affect the likelihood of reaching the required level for professional sport (Côté et al. (2006). Relevant information was gathered using two thousand two hundred and forty American and Canadian sports professionals from golf, ice hockey, baseball and basketball. The results demonstrated a birthplace bias towards towns with a population size less than five hundred

thousand. The data suggested that athletes had a much better chance of representing professional level sport if the town they originated from had a population size between fifty thousand to one hundred thousand people. A possible explanation for these findings might be related to competition for practice facilities, when the ratio of people trying to access practice facilities is high in relation to the number of facilities available. This might suggest that in urban areas the ability to practice is restricted due to availability of practice time and facilities. If true this does not aid models of talent development as we know it since development requires practice (Ericsson et al., 1993; Côté et al., 2007). However a critique of the study of Côté et al. (2006) is that birthplace is by no means a guarantee that the athlete remained there to develop their talent, this was not accounted for in the study. Onywera et al. (2006) researched four hundred and four Kenyan athletes who won Olympic and Commonwealth medals and participated in major world marathons. They researched various demographics and found a link between the athlete's home location and the distance to their school. It was discovered that the majority of elite athletes who travelled further than five kilometres to school ran that distance. The findings showed that elite Kenyan athletes came from a distinct geographic location and this contributed significantly towards their success.

2.4.5 Relative Age Effect

The month of the year in which you are born has shown to cause disproportionate representations when analysing sports performers (Musch & Grondin, 2001; Van Den Honert, 2012). Relative age effect (RAE) is a term used to explain the advantage someone may have dependent upon their chronological age. If you are 'lucky' to be born early in the year it has been shown in many sports you will have obtained an advantage over someone else born later in that year. Musch & Grondin, (2001) researched RAE in sports and stated that it existed in

some form in almost any sport, however it varied considerably depending on the sport in question (Côté et al., 2006). There seems to be strong evidence supporting RAE in physical sports for example, ice hockey, hockey and soccer (Côté et al., 2006; Vaeyens et al., 2007). Vaeyens et al. (2007) researched whether RAE existed in a sample of two thousand seven hundred and fifty seven Belgian semi professional and amateur senior soccer players. It was revealed that there was an over representation of players born in the first quarter of the month. This evidence was also matched by research in Australia where it was found that 42.46% of under fourteen and fifteen male footballers were born in the first quarter of the year and were chosen to compete in the youth championships. Compare this with only 11.97% of them born in the last quarter (Van Den Honert, 2012). However, in golfers who represented the US PGA Tour the RAE was discovered to be very small - effect size (d) 0.09 (Côté et al., 2006). Possible explanations why the RAE phenomenon is not significantly found in golfers could be because golf is a more technical than physical sport and so physicality might be less important (Musch & Grondin, 2001). In light of the evidence supporting RAE in many sports then educating sports coaches about RAE seems appropriate and essential to promote equality for talent development. Coaches and organisations typically select individuals to create sports teams (England Golf, 2009), many of these teams may receive allocated resources for example professional coaching (England Golf, 2009). This may affect their development as shown by other scholars (Bloom, 1985), therefore it is essential that selection criteria is not based on chronological age if an ethical viewpoint is to be portrayed in the talent development process (Bailey et al., 2010). Scholars have suggested other ways to identify talent instead of RAE, including reducing the time period over which selection is obtained and using biological age instead of chronological age (Musch & Grondin, 2001) and using age quotas (Barnsley & Thompson, 1988). It has been suggested that the greater the population size the

greater the chance of predicting a RAE (Musch & Grondin, 2001). In addition regarding the same research, it has also been postulated that RAE's are also associated with the amount of potential players available (talent pool). This can also be culturally significant, for example soccer in England (Vaeyens et al., 2007). Musch & Grondin (2001) propose that if there are not many participants, who make up the talent pool then evidence for RAE will not exist as athletes will have to be chosen no matter their chronological age. This has been noticed to be true in the case of Australian elite young female football players (Van Den Honert, 2012). Conversely the larger the talent pool the higher the chance of a RAE. By applying this hypothesis to golfers in America, we would expect a large RAE, however the reality shows the opposite (Côté et al., 2006). This suggests that the talent pool or the number of participants available might be a factor but not the limiting one. RAE's have been proven to exist in certain sports but not all (Côté et al., 2006), since they fail to exist in all sports there must be other important factors excluding chronological age that exist to predict future talent. Further work is required to determine those attributes for success in all sports (MacNamara et al., 2010) including golf. Whether RAE is something that affects golfers in the UK has yet to be researched, this study can contribute towards knowledge in that field.

Considering that sport is big business and that governments offer funding to support the coaching of athletes (Olympic Games, DCMS, 2008) it is important that coaches, selectors and parents understand the factors which influence talent development and its identification. The evidence supplied here suggests that many models of talent development fail to account for all the factors which influence their cause in a positive manner (Turner et al., 2012). In addition evidence in this chapter demonstrates that these same models may negatively affect the development of talent in some people by their exclusive nature (Bailey et al., 2010).

2.5 Chapter Conclusion

This chapter reviewed some of the existing empirical and theoretical literature relating to participation and talent development in sport. Four models of talent development were highlighted and their features, concepts and pathways within them discussed. It highlighted the positive and negative aspects of the models and explained some of the key special training philosophies associated with them. The review discussed domains that have influence on the talent development process, which were specifically, psychological, social and environmental. The chapter explained the importance of psychological states for example motivation to reach the upper echelons in sport. Social and environmental factors were also highlighted specifically the important role that the family plays in the development of talent in young people. These influences were further broken down to demonstrate in greater detail the complexity of each domain and how they contributed towards the talent development process as a whole. The concepts of the sports club were discussed that provided evidence for support of young people in sport and how it provides a social meeting place for friends and to compete against them, which was a significant reason for participation. The influence of a country's cultural attitude towards sport was considered and demonstrates how a nation can influence the participation and support for certain national sports for example ice-hockey in Canada.

Coaching and learning was discussed and shown to be a significant contributor towards the development of talent. Coaches were perceived positively as role models, confidence builders and helpers with technical areas in sport. It was also suggested that in certain situations people can learn implicitly by doing. This review also considered the phenomenon of luck and it demonstrated that luck can act as a positive or negative influence

depending on the context. Lastly the review considered relative age effect and discussed its significance, it demonstrated that an over representation of children born early in the year exists in some sports but not all.

The following chapter will outline the methodology employed which allowed talented professional golfers to provide information about their early developmental experiences.

Chapter 3: METHODOLOGY

3.1 Introduction to the Chapter

To explore the early developmental experiences of PGA golfers, retrospective interview methods (Côté et al., 2005) were adopted and used on identified talented PGA golfers. The results from the interviews contributed towards a unique individual insight into the process of how those young golfers were introduced into the game of golf, how they developed, which significant others were important, identifying mediating factors for development, which could have contributed towards the end result of each golfer to acquire enough expertise to turn professional and be a successful PGA Tour Professional. A case study of seven UK Tour PGA professionals agreed to participate. A detailed analysis will be given concerning the recruitment of the sample and rationale. Prior to undertaking the final research project the researcher tested the research methods using a pilot study. This was essential in order to ensure that the research questions were fit for purpose, which could lead to meaningful information about the golf development process. Such things as ensuring the sample group could answer the questions, ensuring the interview questions were fit enough to elicit useful information, test interview technique, sequencing of questions, appropriateness of questions, test the recording device and all other relevant factors (Cohen et al., 2007). Details of the methodology used in this study will be outlined and discussed accordingly. Pertinent information will be provided about the researcher to cover the subject of reflexivity and the chapter will discuss and explain the process for collection, analysis and interpretation of the data from the research methods. Lastly details will be given regarding how trustworthiness and credibility were approached in the study of talented golf professionals.

3.2 Methodological Paradigms

There are two main methodological paradigms used in research, namely qualitative and quantitative (Cohen et al., 2007). Qualitative research aims to capture qualities that are not quantifiable and therefore explores attitudes, behaviour, feelings, thoughts and experiences (Gratton & Jones, 2004). These concepts are associated with the interpretative approach to knowledge (Silverman, 1993). This approach can be used effectively to allow theory to emerge. “The researcher begins with an area of study and allows the theory to emerge from the data” (Strauss & Corbin, 1998, p.12). Interpretative analysis can help with detailed raw data and use it to create concepts, themes or even models; this can be completed by the researcher.

Quantitative research is used extensively in the physical sciences and has, historically been the main way of conducting research. Quantitative methods are still used in sport studies; a recent example in relation to golf is Robertson et al. (2012) who used high ability amateurs and golf professionals in order to attempt to discover differences between them. Research using quantitative methods has dominated research in education before the 1970’s but from the 1970’s and especially until the 1980’s a significant rise in the use of qualitative research techniques has been observed. Considering this evidence some scholars have called this time ‘an age of paradigm wars’ (Gage, 1989; Hammersley, 1992).

Before embarking on this study the researcher had to consider some of the things discussed and how he might affect the research since he is part of it. To elaborate, our basic assumptions about the nature of reality called ontology leads to basic assumptions about what we can know about reality including the connection between knowledge and reality, referred to as epistemology (Denzin & Lincoln, 2000). According to Hitchcock & Hughes (1995) this

view will affect how the researcher may go about practically researching the subject, namely in a way the researcher views as valuable. This study of professional golfers has used an interpretive approach. This approach is very useful to understand the experiences of the seven golf professionals in this study. “What we call our data are really our own constructions of other people’s constructions of what they and their compatriots are up to, it is obscured because most of what we need to comprehend, a particular event, ritual, custom, idea or whatever is insinuated as background information before the thing itself is directly explored” (Greetz, 1973, p.9). Factors which make up reality are individual perspectives or constructions of reality (Hatch, 2002) and so from seven viewpoints we will get a picture of what talent development is for these golfers. The interpretive researcher starts with individuals and seeks to understand their interpretation which cannot be reduced down to numbers e.g. thoughts and feelings to uncover meanings and values. Research has attempted to describe talent development in the form of models and diagrams (Balyi & Hamilton, 2004; Côté et al., 2007) however these suggestions do not contribute much towards the psychological sociological and environmental perspectives of athletic development. A section about the researcher has been included (see section 3.6) to take into account his ontological and epistemological stance. This has been included so that the reader can consider the influence of the researcher, which is called reflexivity (Brackenridge, 1999) and how it might affect this research.

3.3 Rationale for Research Method

The study of sport and talent development has emerged relatively recently as a subject of academic interest (Gratton & Jones, 2004) and a significant proportion of these studies have been executed using qualitative research methods (Toms, 2005 in cricket; Wolfendon &

Holt, 2005 in tennis; Wall & Côté, 2007 in ice hockey; Fraser-Thomas & Côté, 2009 in swimming and Stoszowski, 2011 in golf). Whilst reviewing the relevant literature the researcher identified various research methods employed, namely questionnaires (e.g. Ward et al., 2007; Ford et al., 2009; Martindale et al., 2010; Bridge & Toms, 2013) questionnaire plus semi-structured interview (e.g. Kirk et al., 1997); structured interviews (e.g. Baker et al., 2003; Hayman et al., 2011) semi-structured interviews (e.g. Bengochea et al., 2004; Fraser-Thomas & Côté, 2009); retrospective interviews (e.g. Côté et al., 2005); telephone interviews (e.g. Jowett & Timson-Katchis, 2005; Johnson et al., 2008); analysing statistics (e.g. Côté et al., 2006) and ethnography (e.g. Kirk & MacPhail, 2003; Toms, 2005).

Patton (1990) mentioned that qualitative methods allow the interviewer to comprehend another person's view of the world. The researcher specifically wanted to understand the process of talent development in talented professional golfers. At the root of the interview is an understanding of the lived experience (Seidman, 2006) which is precisely what this study aims to achieve with the developmental process of professional golfers. Interviews are social interactions between people and they are dynamic in nature. The interview is flexible for data collection enabling multi-sensory channels to be used for example verbal and non-verbal. Retrospective semi-structured interviews were chosen by the researcher to elicit information about talented golfer experiences. Côté et al. (2005, p15) mentions that "retrospective interviews with such outstanding athletic performers will remain one of the primary sources of information on the acquisition of the highest levels of performance for the foreseeable future". Relating specifically to golf, retrospective recall has recently been suggested to be a dependable method by Hayman et al. (2012) who studied nine aspiring elite adolescent golfers over a nine month period and found that the recall of previous activities was very similar to actual self-recorded diary logs.

Since this research explored the experiences of seven professional golfers it was possible that each interview was unique. Thapar-Björkert & Henry (2004) argue that interviewing can be problematic in relation to power. In that it can reside in both interviewer and interviewee, which could contribute towards bias in the data. This was relevant for this study since it involved seven separate interviews between two golf professionals, namely the interviewer (PGA Professional) and the interviewee (PGA Professional). There could have been the potential for different dynamics of power with each interview, for example one professional giving answers to impress the other by exaggerating replies. Some academics mention the negative aspects of interview methods, namely that they can be prone to interview bias and that they can also be time consuming (Silverman, 1993). Semi-structured interview schedules exist along with structured interview schedules. Instead of researching through a stringent set of questions without deviating from that path, semi-structured interviews were carried out (e.g. Wheeler, 2011). This allowed the researcher to look retrospectively at the player's life history and further questions and answers given about their sport and golf experiences. The questions asked were of an open type, which Silverman (1993) argues allows respondents to demonstrate their unique view of their world. This version of enquiry can highlight reality by reconstructing previous events eliciting deep and meaningful explanations (Seidman, 2006) which can then be used to help understand the whole process of talent development in golf.

Retrospective accounts exist in many sport participation and talent development studies (e.g. Bloom, 1985; Côté et al., 2005). Retrospective methods can generally be conducted over a period of minutes and hours rather than years and decades, which could be the case for other methods for example, longitudinal research. Retrospective methods also have the advantage of not requiring large financial resource. Lastly retrospective methods

may involve significantly less data analysis in comparison to longitudinal methods, meaning just one person can adequately complete the research (Johnson et al., 2008). Considering this study was researching the early developmental experiences using the framework from Côté et al. (2007) it was inevitable that some deductive reasoning would be applied to the study. For example in the 'Early Specialisation' phase of the 'DMSP' Côté et al. (2007) prescribe high levels of 'Deliberate Practice' and suggest specialising in one sport.

3.4 Pilot Study

A pilot study was conducted and represented a test run for the final research. The pilot study was used to check whether the interview questions were appropriate and flowing. It also helped formulate the questions and develop a structure for the study as well as highlight any areas that might be worth exploring. The pilot study was also used to identify any potential problems with any part of the interview process so that the main study could run smoothly. The sample was chosen from golfers who finished between positions twenty one to thirty of a previous year's UK PGA Tour. This was a strategy used to reduce their chances of being in the top ten for the main study. Five UK resident golfers agreed to be interviewed and were aged between twenty eight and thirty seven. The pilot study used a telephone semi-structured interview method and the interview was recorded using a digital recorder near the phone. Dooley (2001) and Bernard (2011) mention that using a telephone method is advantageous since it reduces costs relating to time and travel.

Conducting some of the telephone interviews was found to be troublesome; it was difficult to understand answers on the phone due to the UK national accent variation and due to interference problems on the phone. This resulted in the researcher asking the sample to repeat themselves in some instances several times, which the researcher was aware might not

be conducive in creating rapport between both interviewer and interviewee. Due to some recorded interference on one particular interview several minutes of data were lost. Several interviews were interrupted and halted altogether due to some of the interviews being conducted at the samples work place; this also helped the researcher learn to ensure that an appropriate setting for the main thesis was put in place. A copy of the transcription was sent to each sample member accompanied with a letter explaining that the sample could change any wording which they did not believe represented their answers well, this was used to verify member checking (Cohen et al., 2007). None of the golfers responded to amend the interview and the data was used for analysis. During transcription the researcher was able to reflect on the questions and test the language as advised by Patton (1990).

The researcher was also aware that no body language was visible and could not be assessed. This made it difficult to trust that rapport was present during some interviews. Promoting rapport during interviews has been suggested as essential for success (Cohen et al., 2007). The researcher had no real control over where each telephone interview would occur and this lead to interruption, this was considered a negative factor when conducting the interview and it helped the researcher realise the importance of being able to control an appropriate interview setting.

The researcher did save in terms of cost and time; however the researcher decided to conduct the main study in person. It was decided that face to face interviews would be a better method to eliminate ineffectiveness associated with the pilot study namely, mobiles and telephones interference noise, difficulty hearing on the phone, accent related misunderstanding, interruptions and a potential loss of rapport. However despite these negative issues the researcher perceived that the pilot study was invaluable for increasing his

interview skills and it helped ensure that the appropriate questions were asked in relation to the study. The pilot study also helped ensure that the sample used was suitable to help answer the research question (Miles & Huberman, 1994).

The pilot study was beneficial for the researcher to receive insight regarding elite golfers, the main concepts identified from this were, avenues of introduction (family, friends and school), socioeconomic status, the love of golf by the golfers, friends, golf club membership and its benefits, desire to improve, competitiveness, luck, time lengths involved to achieve expertise, critical incidents, coaching and information relating to the golfers ultimate desire to be a professional golfer.

3.5 Research Design

3.5.1 Participants – Sampling

In order to study talented professional golfers those who were currently competing on the regional PGA tours and who had proved to be recently successful were used. Initially the researcher was interested in contacting and meeting fulltime European Tour players. However these players tour internationally and the researcher did not have the resources to pursue them. This important aspect of research can make or break it according to Gratton and Jones (2004) who recommend embarking on research in line with the ‘CAFÉ’ acronym that being complexity, access, facilities and resources.

The researcher contacted the British PGA to gain access to a list of golf professional’s names from the final Order of Merit standings in a specified year; the year has been kept confidential to protect the players’ identity. Competitive PGA professional golfers living in the UK normally play in one of the following regions, Scottish, North, Midland, East, West,

South and Irish. These golfers are awarded ranking points depending on their success and these points go towards the Order of Merit. The golfer with the most points at the end of the season wins the Order of Merit. It was decided that the researcher would use the most talented PGA professionals who competed in one region using a purposive convenience sample (Patton, 2002).

3.5.2 Sample Criteria

Some athletes have been researched and discovered to be talented by winning world championship medals (e.g. Durand-Bush & Salmela, 2002). Other athletes have been studied and shown to be talented by representing elite teams (e.g. Ward et al., 2007). Concerning golf professionals generally play in tournaments and travel around regions and countries to compete on tours (e.g. US Tour, PGA European Tour and PGA Challenge Tour). The goal is to finish as high up the order of merit table as possible or ideally win it. To get accurate representations from such professionals the researcher chose to research the top ten golfers from eighty who had competed the previous year on a specific regional tour of the British PGA. A purposive sampling method (Patton, 2002) was used to contact seven golfers that were representative of the highest level of golf possible but below that of the major international tours i.e. US Tour and European Tour. It would not have been reasonable for the researcher to try and include these elite golfers, who travel the world weekly due to financial constraint. Case studies have been demonstrated to be useful for exploratory research and hypothesis generation; they are useful in exploring contemporary phenomenon within a real context using multiple sources of evidence (Yin, 1984). A well cited example relating to sport talent development which has used this approach is 'DMSP' (Côté, 1999; Côté & Hay, 2002; Côté et al., 2007). Côté (1999) originally researched four Canadian families comprised

of fifteen members namely, athletes, siblings, mother and father to develop the 'DMSP' model and theories relating to sport participation. The results from this study have been widely used and cited (e.g. Baker et al., 2003a; Berry et al., 2008; Bailey et al., 2010) this demonstrates that using a small sample can still yield interesting findings, divulge in depth and rich detailed responses, which other scholars can agree with, disagree with or use for the purposes of their own research and reviews (Bailey et al., 2010). Qualitative enquiry typically involves a relatively small sample of participants (Côté, 1999; Baker et al., 2005) and generally involves using a purposive method (Patton, 2002). This study employed a purposive method and allowed the appropriate people to be approached who have obtained in depth knowledge about golf by virtue of their expertise or experience. The sample of seven golfers allowed the researcher to focus on the quality of data instead of sheer quantity. This helped the researcher understand meaningful data which was related to the early developmental experiences which contributed towards the ability to reach professional level at golf. Several other sports research studies exist, which have used small sample groups to yield interesting findings. Wolfendon & Holt, (2005) used a small sample group to attain information about elite junior tennis players and discovered the importance of parents and coaches to the development process to name but a few. The researcher talked to the golfers on the phone resulting in a verbal agreement to start the study. Contact details were exchanged and the researcher emailed an invitation to participate in the research (see Appendix A). This was followed up by a phone call to those who had not returned the form within a few weeks. Once the researcher had received all the informed consent forms, he arranged the interviews at the convenience of each sample member.

3.5.3 Professional Golfer Demographics

All seven talented PGA professional golfers used in this study were white Caucasian English males with ages ranging from thirty two to forty and the average age was 34.7. The golfers all came from middle class two parent families who lived near the countryside. All the golfers came from families who remained together throughout the majority of the golfer's talent development process. Six of the golfers had played European Challenge tour, three golfers had played European Tour regularly and finally it was noted that two players had managed to qualify for and play in the British Open. A brief vignette of each player (see Appendix G) is given, the names have been changed and pseudonym's used to protect their identity.

3.6 The Researcher

The researcher has played golf on and off for the last twenty seven years. He grew up mainly by his mother and grandparents after his parents divorced around the age of ten in Hamilton, Lanarkshire, Scotland. Sport consumed his young life after he first started playing badminton and football at school. He more or less introduced himself to golf aged twelve after finding a couple of old golf clubs in his grandfathers shed. He joined a municipal golf club aged fourteen then joined a private one a year later. In addition to golf he played table-tennis and ice hockey to a very high standard and possibly could have pursued a career in either. No golf coaching was received in childhood, aged sixteen he represented Lanarkshire as a junior when his golf handicap was three and reducing. The thoughts of becoming a professional golfer materialised at that time, however this idea was extinguished by his grandfather and mother after good 'O' grades at school. In 1990 he attended University for four years studying Biochemistry & Immunology and stopped playing golf for six years

mainly due to financial constraints. In 1998 he decided to pursue a career in golf as a PGA Professional. After qualifying he won several golf related awards, has worked for Middlesex County as a coach and is heavily involved with continuous professional development.

3.6.1 Researcher Bias

It is impossible to do research regarding interviews without the researcher affecting the process by their own values, characteristics and attitudes. The researcher recognises that he is part of the research process and there is no way to escape that. This is called reflexivity and it has been suggested that this needs to be considered as part of the research process (Brackenridge, 1999). Considering the researcher himself is a professional golfer and has also played some competitive golf over the last eight years. This brings with it some positives and negatives aspects, the positives aspects related to the researcher's wealth of golf development knowledge and experience relating to his own developmental process. This can help with the actual research process. However, the researcher realises that there could also be a bias view on the research findings due to how he views his own development; this is a problem as it affects our subjectivity when researching others (Hammersley & Atkinson, 1983). However, following the interview guide (see Appendix D) was considered as one of the ways to help alleviate this problem. Mutual ground exists between both researcher and interviewee in the form of PGA membership. According to Cohen et al., (2007) these benefits are pre requisites for the success of life history research. This common ground allowed for a relaxed start to the proceedings and contributed towards building rapport. It has been advised that attempting to access professional people for research purposes can be problematic (Cohen et al., 2007). PGA affiliation proved to be very beneficial in initiating the research project with the sample.

Researchers have to be aware that interviewees could give answers which they perceive is wanted instead of the truth possibly as a result of the power position of the interviewer, which can occur in some research settings (Thapar-Björkert & Henry, 2004). Considering these unwanted outcomes, which can invalidate research findings then building rapport, is essential and the strongest defence to reactivity.

3.7 Ethical Considerations

The research process involved working with people and it was important to consider the ethical issues regarding this as shown in Gregory (2003). The University of Birmingham lays down rules which must be adhered to by researcher's which deals with important ethical considerations. An application was required to perform the research, which was presented to the ethics committee of the University of Birmingham. Once this was cleared the researcher was free to go about recruiting a sample.

The golf professionals in this study were all initially contacted by telephone and details about the research were sent. During this conversation the researcher received the samples contact details. Shortly afterwards an e mail was sent to each participant with a covering letter (see Appendix A) and an 'Informed Consent' form (see Appendix B). The inform consent form contained information about the study so that each sample was fully informed. The form explained that participation was voluntary and that they could leave at any point during the research. Since this study was going to search into the samples 'early developmental experiences' it was important to inform the sample of this exploration (Frankfort-Nachmias and Nachmias, 1992). Ethical research involves protecting the identity of participant's. Therefore the researcher changed the participant's names and used pseudonyms instead in accordance with academic research (Lincoln & Guba, 1985).

3.8 Data Collection

The researcher offered to meet the golfers at their discretion, this for six golfers turned out to be at their home golf club. The remaining golfer chose to meet at their home. On arrival on each interview the researcher thanked the golfer for participating then the researcher advised on finding a suitable location for the interview. It has been advised that the researcher create the right atmosphere from the start (Cohen et al., 2007). To help do this the researcher decided to chat about the latest tour players on television and how they were performing. After a short period the golfer was reminded about the study and what was going to take place shortly. The golfers were reminded that their identity would be kept anonymous and that they would be digitally recorded.

3.8.1 Interview Process

Tuckman (1972) mentions that one of the first steps in designing the interview is specifying your variables you wish to explore. The researcher was interested in the early developmental experiences of professional golfers using Côté's developmental model of sport participation. In addition Ericsson's 'Deliberate Practice' theory was considered. The interview process was recorded using an Olympus VN-3100PC digital recorder; this allowed the researcher to focus fully on the study to hand instead of trying to write down notes and potentially miss important information. Interviews lasted between forty three minutes and one hour and ten minutes. The interview was conducted using a form which helped the researcher ask about the sample's extracurricular sport including weekly hours of participation (see Appendix C). On completion the researcher used the interview guide (see Appendix D), which was created around 'DMSP' and 'Deliberate Practice'. For example "How old were you when you started to take the game more seriously?" (probing for reasons,

training activities, effort and support). Another question posed was, “Tell me more about how you practiced at that time?” (probing for a description of the type of effort during practice they experienced. If coaches were involved, quantity, intensity/ effort, done alone or not). Semi-structured questions were asked gathering data about the process of golf talent development.

More specifically the interview guide was designed to elicit information relating to the early development of talented golfers e.g. how players were introduced to golf, how they practiced and played, who they played with, decision making information and coaching information. In addition it sought to examine the number of sports played in addition to golf, what ages those sports were played at, how many hours per week they participated, the representational level and the reasons for drop out, if appropriate. The goal was to get a detailed view of talent development using these seven talented golfers. Other qualitative research studies exist and have examined elite development using similar lines of enquiry (e.g. Baker et al., 2005). With regard to the timeline, this was designed to help the sample remember chronologically about their sport experience (see Appendix C). Short notes were taken at the same time to help the researcher remember these points once back at home.

3.9 Data Analysis

3.9.1 Participant Validation

Immediately after each interview the researcher returned home and downloaded the audio data onto a password protected laptop. Pseudonyms were used not only for the golfers’ names but anything else which might reveal his identity. The audio data for each interview was transcribed verbatim onto a word document. Once this was completed a copy of the interview transcript (see Appendix E) was sent to each golfer shortly after the interview as

shown in Sparkes (1998) to be reviewed by the sample member. This allowed the golfer a chance to read and check the content of what they said to verify if this was a true reflection of their views. This was an important part of ensuring validity of the results. The sample was also informed that if they wanted to make changes to the document they were allowed to do so. In response to this, no one changed their answers and the content remained and was used as the confirmed final data for analysis.

3.9.2 Data Analysis Process

A timeline was used to help with memory recall of sports played when younger including golf. The timeline was useful in gathering qualitative data as the researcher could ask questions about the sports as the interview progressed. This helped explore in more depth factors, for example which existed that helped a participant to terminate a sport, otherwise known as drop out. Information was gathered to explore other factors which encouraged more participation (e.g. good coach). These factors can be called ‘critical incidents and critical episodes’ (Côté and Hay, 2002a; Bailey et al., 2010). The timeline was a great tool in addition to the semi-structured interview methods in extracting deep and meaningful qualitative data. Although the timeline was efficient in gaining sport history data, it did not manage to attain consistent numerical information from each sample. Problems were experienced when communicating weekly participation hours for golf through the years. Analysing the timeline was problematic (Appendix C) considering the UK seasonal variations (weather and the number of light hours available) and the influence that summer school holidays had on participation rates (golfers playing all day, every day). Therefore it was near impossible to get an average amount of weekly participations hours annually. However it is compelling to see that participation levels in summer holidays and weekends is substantial,

contributing to existing research regarding the concepts of learning to play, practice and compete (Stadler & Frensch, 1998; Côté & Hay, 2002; Ericsson et al., 1993; Ford et al., 2009) The researcher was aware that collecting numerical data was in line with a quantitative approach however the data was considered not to produce statistics to test, define or postulate theory but to help research their early developmental experiences and dedication, which is more qualitative.

Once data from the sample had been obtained the next stage was to analyse and interpret the results using a coding system. Each line of transcribed data was numbered and each line of text was analysed inductively. This maintains that the researcher keeps in touch with the sentiments of the sample (Charmaz, 2000). Inductive analysis means that the patterns, themes and categories discovered are generated from the data (Patton, 1990). These methods are used to identify meaningful segments of data e.g. by words, phrases, sentences or paragraphs (Miles & Huberman, 1994). The researcher constantly compared interview responses and made rational associations with the interview guide (Appendix D). This helped organise the data orderly into systematic categories or themes with subthemes or concepts. The data was put into an excel spread sheet then the transcripts were re-read until no further patterns or themes could be identified (see Appendix F).

SS	69	Deliberate Play - Playing 9 holes with Granddad	At that age It was probably after school, where I use to play 9 holes with my granddad now and then when I got to about 11 or 12 I would be playing with the other juniors more often
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Table 2 - Example of ‘tagged’ data

In consideration of the researchers knowledge not only in golf but with the theoretical frameworks under investigation themes emerged inductively from the data relevant to the study after constant comparison. At the end of this procedure the researcher had quite an

extensive list of key words or themes and subthemes to analyse and explore (Yin, 1984). The themes relating to the research question became the major and minor findings of the study (see Appendix H).

3.10 Establishing Trustworthiness and Credibility

Prior to conducting the final study the researcher undertook a pilot study. This pilot study helped refine questions and it also helped with the interviewer's experience regarding interview techniques. It also greatly increased the interviewer's confidence to conduct the final study. The pilot study helped to consider choosing a neutral time to interview, which helped with trustworthiness and credibility as there was no rush in conducting the study.

It has been suggested that every aspect of research can be designed to reduce the influence of the researcher on the process affecting the reconstruction of the participants experience (Seidman, 2006). However the researcher is inextricably part of the research process since they ask questions, may affect answers and they interpret and analyse the data. Reliability in this type of research can be increased by conducting a highly structured interview (Silverman, 1993) by being consistent with the same format and order for questioning. In view of this the researcher used the interview guide (Appendix D) but since this was inductive exploratory research whenever something new arose, which was relevant to the research question deviation from this protocol was essential to obtain relevant data. The fact that the interviewer was also a PGA golf professional may have helped with trustworthiness and credibility due to the ability to talk in golf terminology without confusion; this could have helped with the research process between both parties.

Qualitative texts offer advice to increase validity namely suggestions to reduce bias (e.g. Seidman, 2006). This study used a timeline form at the start of the interview, which was

employed to elicit information but also ensured consistency and helped with building rapport. Gratton & Jones (2004) have advised that this type of enquiry may be a good way of increasing validity in the study. The researcher was also aware that his own development experience as a professional golfer could negatively influence the data by using personal experience and as such bias the research. However there are positives to sharing common ground in that the golfer being studied could relax and talk in terms he is accustomed to regarding his golf experience, this is more likely to elicit truthful answers to questions and it contributes towards credibility for the study. Nonetheless the researcher was strict in keeping to the interview guide. At the beginning of each interview it was presented to the golfer that there was no right or wrong answers only his own truthful one. This meant he could talk freely increasing the likelihood of trustworthy answers. Qualitative researchers who use an interpretive approach understand that trust is important as opposed to the conventional positivistic criteria of validity, reliability and objectivity (Denzin & Lincoln, 2000). It has also been suggested that the potential for trust and cooperation between interviewer and interviewee is strong (Dooley, 2001). Copies of the final transcripts were sent to each golfer for member checking approval and thus increasing trustworthiness and credibility.

3.11 Chapter Conclusion

This chapter introduced the qualitative research methods used to study talented professional golfers. It offered a rationale for these methods and provided details about the researcher to understand his ontological and epistemological stance. The researcher provided an explanation on how he was going to identify and recruit talented professional golfers' both for the pilot study, which was a test run and for the main research. Ethical protocol was explained and how he would protect the identity of the professionals and the research data.

Details about how the data was collected from the professionals were given and an explanation about how the researcher analysed the data was offered. Finally information about how the researcher accounted for validity and reliability of the study was outlined. The next chapter will show the results and discussion, which arose from the qualitative methods employed from this chapter.

Chapter 4: RESULTS AND DISCUSSION

4.1 Introduction to the Chapter

This chapter will explore the themes that emerged from the findings of the semi structured interviews from the golfers (see Appendix H for a concept map and see Appendix F showing the filing system for themes and sub themes from the data). These appendices highlight that an extremely large amount of data was gathered, which details holistic information regarding golf development in young people. However due to the word count of this thesis only certain factors, which the researcher deemed the most important are contained in the findings of this thesis. This study will give insight into how young golfers are introduced to golf, it will suggest the importance of pay and play or joining a golf club and suggest phases of development based on the psychological motivation of each player wishing to continue with golf. Activities in which golfers participate within each phase, which could develop their talent will be presented and analysed. Since the information obtained from the semi-structured interviews related to the developmental experience of young golfers, information relating to the theory of 'Deliberate Practice' could also be explored. Therefore although this study was inductive, due to the interview questions and framework used to research it, this study can also deductively look at 'Deliberate Practice' theory to see if it is relevant and present in talented PGA golfers. Decisions golfers make during their development, also known as critical incidents and episodes (Côté and Hay, 2002a; Bailey et al., 2010) are key to the pathways they choose. These key decisions will be outlined to understand their effect in the development of these professional golfers. The following guide model has been presented in order to help understand the important features involved in a young golfers journey from beginner to tour professional. Themes which emerged from this

study of golf professionals are presented in this guide and it serves as a starting point to help explain the early developmental experiences of PGA professional golfers in the UK.

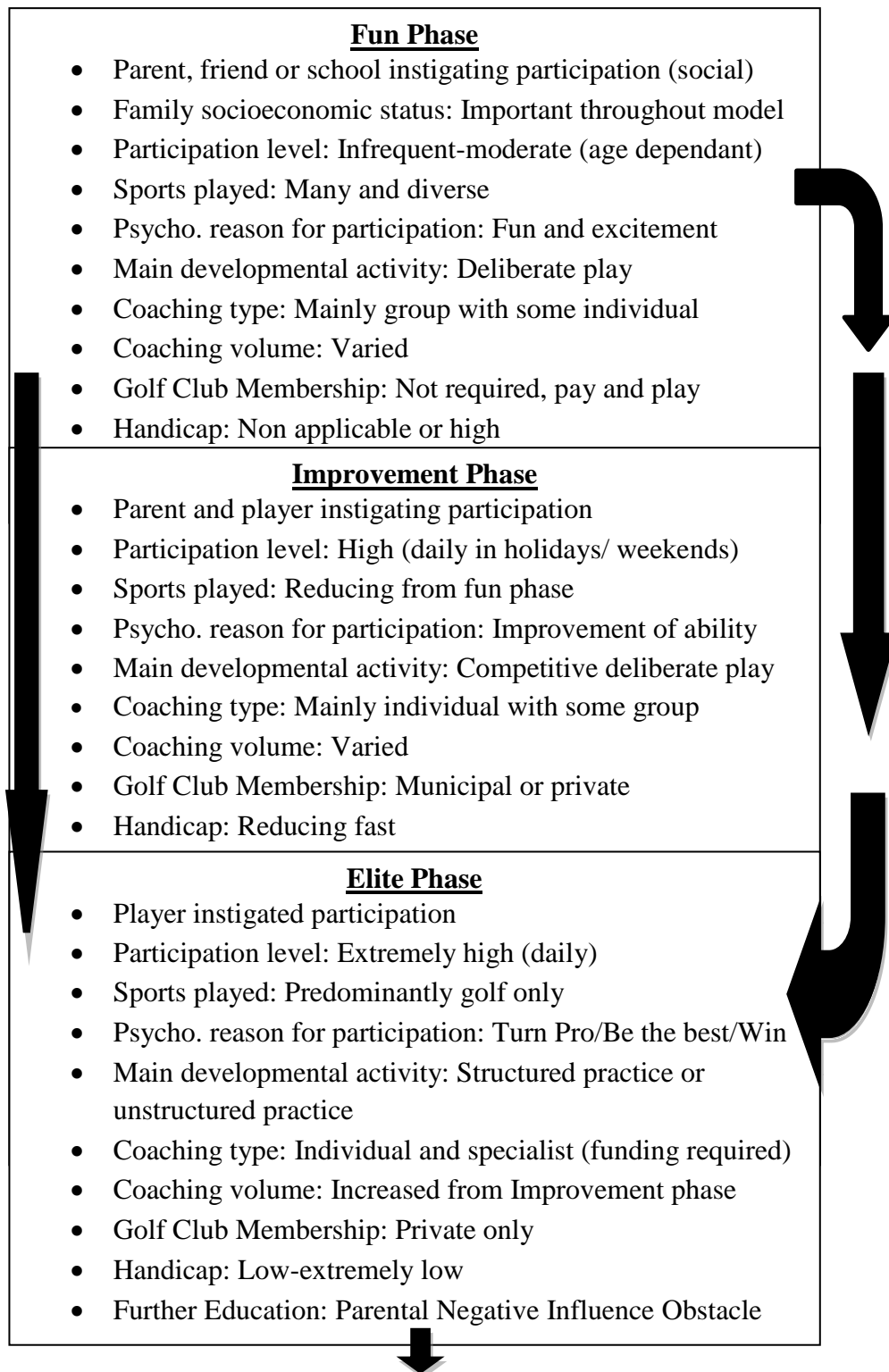


Figure 5 - UK Guide Model for Turning Professional

4.2 Golf Developmental Concept

Using the research findings (see Appendix H) the researcher started with the overarching theme of golf development. This data was refined to subthemes and dimension, which will be discussed. The rationale for choosing the categories was based on the golfer's mental attitude to golf, which emerged from the data. These were identified as either the fun phase, improvement phase or elite phase. The study revealed that the entire sample initially adopted a fun attitude to playing golf (Fun Phase). Evidence was then presented demonstrating a motivation for personal improvement, winning, addiction and love of golf (Improvement Phase). This was evident by the terminology used by the sample for example "wanting to be the best, wanting to get as good as possible, wanting to beat peers and addicted to golf". Finally, the entire sample disclosed that ultimately the reason for participating in golf was to become competent enough to turn professional, compete on tour and to be the best professional (Elite Phase). See data analysis section for more information.

The end result of these three phases was turning professional at golf at an average age of 20.6 then playing on tour to try and win monetary prizes and compete with other tour professionals in an Order of Merit on several UK and European tours (Regional, PGA Challenge Tour & European Tour). Below gives an indication of the average age in the stages of development, these figures only act as a guide, a larger study would be required to strengthen the findings. However this study acts as a good starting point considering the lack of empirical research pertaining to golf.



Figure 6 - Average Age in Stages of Development

4.3 Fun Phase

Fun Phase		
Names	Ages	Sports
Jonathan	5 to 10	4
Gregor	6 to 14	4
*Stephen	7 to 14 & 15 to 17	2
Stan	10 to 15	4
John	12-12.5	4
Mark	10 to 16	3
Charlie	9 to 13	3
Average start of phase age 8.4	Average end of phase age 13.9	Average No. of sports 3.4
Average time spend in phase 5.5 years		
*drop out 1 Yr.		

Table 3 - Fun Phase Age Ranges and Sports Played Including Golf

The researcher has named the first phase of development the 'Fun Phase'. The data shows that the average starting age was 8.4 which agree with other sport studies (Kirk & MacPhail, 2003; Colclough & Toms, 2010; Hayman et al., 2011). The average age that the sample progressed to the next phase was nearly 14. For this sample of golfers progression to a higher level occurs one year later than that proposed by 'DMSP'.

4.3.1 Starting Out In Golf

The young golfers started out in golf through the following channels:

4.3.1.1 Caddying and Deliberate Play.

Caddying for the context of this study is defined as walking on the golf course with parents and helping them retrieve golf clubs from their bags, sometimes the parents allow the young golfers to try and hit balls on the golf course if the golf course was quiet. The following golfers started in this way, Stephen (aged seven), Charlie (aged nine), Stan (aged ten) and Mark (aged ten). These findings support earlier work concerning the important role of the family in young people's participation in sport, not only in the instigation to play but in the financial context to pay. Not every young golfer will be privileged to participate due to their family financial background (Bloom, 1985; Kirk et al, 1997 & Côté & Hay, 2002).

"I played with my dad a little bit on the golf course and kinda mucked around" -
(Charlie, 29/09/10)

"My grandfather... he was a member at the famous Pine Spriggs golf club and he used to sneak me on for a couple of holes when I was ten" - (Stan, 04/10/10)

The entire sample participated in playful golf activities; other scholars have defined these as 'Deliberate Play' (e.g. Côté, 1999; Côté & Hay, 2002; Côté & Soberlak, 2003; Côté

et al., 2003 & 2007). For golfers aged ten or younger these playful golf activities mainly took the form of playing golf with the family or friends at the weekend. However, playing on the putting green with a few balls and having fun in that fashion was also discovered.

“My dad played, he would bring me up and I would just go round the putting green for a couple of hours while he would go and play on a Friday.” - (Jonathan, 26/10/10)

For sample members aged ten or older ‘Deliberate Play’ represented golf activities with friends.

“I could play with a group of friends or people I had met or dad and dads friends who had started playing” – (Gregor, 01/11/10)

‘Deliberate Play’ activities were found to play an essential role in developing golf talent because they were so enjoyable, which helped with the large volumes of time required to become expert (Ericsson et al., 1993; Ericsson, 2006). These enjoyable activities had a positive effect on the players which encouraged them to persevere with practice and play. Toms (2005) provided similar evidence showing the social importance of friends towards sport and noted that in a cricket club environment similar observations were made namely the importance of friends in relation to the early days in sport. There was no mention of the ‘Deliberate Practice’ element using a focused concentration as suggested by Ericsson et al. (1993) in this phase. The opposite was evident; golf was enjoyable, playful and games orientated in nature with very little coach involvement and intensity as shown in some other sports studies and papers (e.g. Côté & Hay, 2002a; Malina, 2009).

John (aged 12) started golf because of a friend, which is another entry route into sport, shown by Côté & Hay (2002a) in the sampling stage.

“He managed to get me an ole club and some air flow balls and that was it I was gone then” – (John, 23/11/10)

4.3.1.2 Golf Lessons with a PGA Professional.

Evidence shows that the father was instrumental in introducing their child to golf and provided financial support. Jonathan (aged 5) and Gregor (aged 6) began golf this way. This important parental role has been demonstrated in other sports including tennis, cricket and golf (e.g. Monsaas, 1985; Toms, 2005 and Hayman et al., 2011). Again there are financial implications to taking a golf lesson and these can range between ten to thirty UK Pounds so socioeconomic status in families is a predictor for future participation with a bias towards those with high socioeconomic status.

“I started doing the Saturday lessons here with the pro and then went from there.” - (Jonathan, 26/10/10)

Six golfers concur with the starting ages for the sampling stage from ‘DMSP’. However ‘DMSP’ does not show compatibility for John’s late starting age of twelve. According to ‘DMSP’ he would have only been able to experience months of sampling and ‘Deliberate Play’ before progression onto the next linear stage. Côté et al., (2007) mention that the sampling years help provide a fun introduction into sport. It also helps build cognitive motor skills through a diversified sports experience. It is difficult to justify how this applies in John’s case with a starting age of twelve. Specifying an age group with a specific stage challenges the early workings of this model as it would not be sampling years, which would apply but sampling months.

The entire sample gave evidence suggesting that their early golf involvement was fun using family members, who tried to make the experience exciting (c.f. Monsaas, 1985; Kalinowski 1985; Côté, 1999). There was no evidence of serious competition in golf at this stage because many of the golfers were not active members of golf clubs and also they were participating in other sports (Côté, 1999). Typically their golfing participation would take place with parents, families and friends. There was one notable critical incident (Côté & Hay, 2002) which was associated with this phase. The junior organiser from Stephen's golf club called him on the telephone to inform him that he had not used his "sought after" golf club membership in the last year. The consequences were iterated to him that if this continued he would be expelled from the golf club. According to Stephen this critical incident intervention positively influenced Stephen to return and participate in golf, which on reflection he was extremely thankful for.

"I got a phone call from the junior organiser to say you've got a membership, which it is sought after, you are not using it and you are gonna play or your out. So I went back and started playing and got back into it yeah." - (Stephen, 22/10/10)

"Me and my dad would play my friend and his dad when we were ten years old at The Manor golf club just down the road from here and then on really. I would swing a club in the garden and went out and played a few times" – (Mark, 29/10/10)

The sample also participated in other extracurricular sports. Golf was originally played with a family member but with time this interaction became more complex involving friends. Group coaching was experienced with varying frequency; only two from the sample had weekly exposure, whilst the others had very little or none. Parents and friends were supportive and influential. Older talented junior golfers and tour golf professionals acted as

important role models, which contributed towards their improvement. The entire sample gave evidence showing that a transition in their attitude to golf formed where they treated golf as a more serious activity and one which merited increased involvement, similar to the findings of Bloom (1985) with tennis players in the middle years.

4.3.2 Junior Membership or Pay and Play (Junior Golf Culture)

The data highlighted that Jonathan (aged five), Charlie (aged nine) and Mark (aged ten) joined a golf club immediately after taking the sport up for the first time, the other golfers did not. There are financial costs associated with joining a golf club (membership) and the parents/ grandparents are those who paid for it. Golf equipment was also essential for young players to develop along with the need for transport since all the golf courses are normally situated in semi-rural or rural areas. Family socioeconomic status is a reoccurring theme in this study for young golfers. Travel costs have been shown to exist in other studies of talented young people for example tennis, cricket, hockey, Australian football, netball and gymnastics (Kirk et al. (1997). Junior golfers lucky enough to have parents or grandparents with disposable income and transport have a financial advantage over those who do not according to studies exploring cost factors (Kay, 2000b). This highlights socioeconomic status as a strong indicator as to whether any young person can display and develop their golf talent.

Once membership has been obtained this allowed junior golfers to play as much golf as they liked. It was discovered that all the golfers who had obtained membership had at least one parent who was also a member. This suggests that parents are highly influential in the early stages of golf development including membership purchase. This importance of the family has been well researched previously (Côté & Hay, 2002; Kirk & MacPhail, 2003;

Toms et al., 2008). John (aged twelve) joined a golf club six months after starting the game independent of parental membership; John was the only golfer who did not come from a family background of golfers. Evidence in other studies has shown that joining a club offers a variety of benefits including meeting other friends to socialise, compete and have fun (Kirk & MacPhail, 2003; Toms, 2005; MacPhail & Kirk, 2006). Club membership provides both opportunities to compete with other peers and helps with reasons to participate, as shown in other studies (e.g. Zevenberger et al., 2002; Côté & Hay, 2002a; Kirk & MacPhail, 2003). Jonathan highlighted that the golf club he was a member of financially supported him as he was at that time displaying extra ordinary talent.

“Yes it opened more doors for me going to a more established club, a private members club” – (John, 23/11/10).

“The club were great I got financial help from them before I went to America” – (Jonathan, 26/10/10).

The other three players’ initially ‘paid and played’ golf first then joining a golf club later. The term ‘pay and play’ is another term used by golfers to describe being able to play golf on a golf course without subscribing to the fixed annual costs of membership and sometimes a joining fee, which can be substantial. Instead golfers can pay the relevant green fee, which is a fee to play the golf course. Similar to membership the junior golfer’s parents or grandparents must be in a financial position to be able to afford this and so the socioeconomic status of the family is an important factor (Kirk et al., 1997; Bailey et al., 2010).

“My parents made sacrifices to help me best as they could” – (John, 23/11/10)

“My parents financially supported me until I turned professional, then I was on my own” – (Gregor, 01/11/10)

When the researcher explored why some golfers ‘paid and played’ instead of obtained membership it was discovered that in the case of Stephen (aged seven) the local private golf club rules would not permit membership until he was aged ten. However, Stephen still managed to play the same golf course by ‘paying and playing’. Stephen discussed that once he reached ten applying and receiving membership was easy since the golf club already knew him.

“Ten you could not join before then, that was the age limit on joining” - (Stephen, 22/10/10)

Gregor (aged six) stated that his parents also tried to buy him private membership; they were refused because his parents were not members (his opinion). This golfer’s opinion shows some similarity to the findings of Zevenbergen et al. (2002) who suggests that the family background of the golfer needs to be suitable or appropriate to the values and culture of the golf club otherwise they can be ostracised.

“Looking back it was harder then wasn’t it to get into a club if you were just a junior. It was different if your parent was a member and things like that” - (Gregor, 01/01/10)

Gregor mentioned that his parents bought a season ticket to the local municipal golf club, which brings up the subject of the socioeconomic status of the family again. He also stated that it was a very supportive club with many competitions and that the junior section was well managed.

“There were lots of competitions and lots of stuff to play in.... it was run very well” –
(Gregor, 01/11/10)

From a social and learning developmental perspective a plethora of evidence from the entire sample highlighted the positive nature of golf club culture. Membership helped with developing friendships (c.f. Miller & Kerr, 2002; Kirk & MacPhail, 2003), provided a locus for competition and allowed access to influential people e.g. PGA professionals, who helped with their development (Côté & Hay, 2002a; MacPhail et al., 2003; Bengoechea et al., 2004). Evidence was also presented to show that the club can help in sport education and experience. Some of the sample stated that the club helped them understand the golf handicap system and its merits.

“Joining a club and playing the same course over and over again... and understanding what handicaps were for and it all made a little bit more sense” - (Gregor, 01/11/10)

Toms et al. (2008) conducted research over an eighteen month period concerning young people, parents, coaches and officials in junior sport. The findings suggested that the family was key to socialising children in sport (Kay, 2003). The Cricket club was seen as supportive and caring towards young cricketers in the under thirteen category. Toms et al. (2008) suggested that the club helps motivation and morale through love given to participants at the club. Similarities could be seen with the way the club is constructed and practiced and this could lend similarity to the notion of the family. This supportive environment has also been shown to be important by golf coaches in England as shown by (Stoszkowski, 2011) in his research of investigating the mediators of talent development in golf from a coach's perspective on golfers. How young golfers can benefit from a golf club system will be

discussed later in this chapter, specifically the culture and significant others for example coaches and how they aid the early development of golfers to elite level.

4.3.3 Developmental Activities

4.3.3.1 Playing Other Sports and Natural Talent

Using the time line (see Appendix C and Table 3) it was discovered that including golf, the sample participated in two to four extra-curricular sports, resulting in an average of 3.4, which is similar to that prescribed by Côté et al. (2007) 'DMSP' in the 'Early Diversification' sampling stage. However, in relation to Ericsson's notion for 'Early Specialisation,' the findings of this study do not agree. None of the sample group focused on one sport early in their golf participation. The findings from this study provide evidence for 'Early Diversification' similar to studies performed on talented triathletes (Baker et al., 2005) and on an online questionnaire of 1006 UK sports people (Bridge & Toms, 2013). The extracurricular sports that this sample experienced were gymnastics, tennis, hockey, badminton, athletics, squash, table tennis, boxing and football. Research has suggested that young people should consider participating in many sports at a young age as an alternative to 'Deliberate Practice' (Baker, 2003) since the possibility exists of transferring skills between sports (e.g. Starkes et al., 1996; Baker et al., 2003 and Côté et al., 2009). This has also been shown to apply in sports that require mental skills (Berry et al., 2008). The entire sample provided evidence to suggest that they were talented in various sports, which according to Gagné (2004) would put them amongst the top 10% of their peers. The sample also termed themselves 'naturals' and several of them stated that they could have pursued a career in an alternative sport. The following are a few related quotes obtained.

"I was county level football from age eleven to eighteen" – (Mark, 29/10/10)

“I was playing football for a Saturday and Sunday side outside of school; I got offered a trial at Birmingham City. I could have gone professional to some degree“– (John, 23/11/10)

“I think you are good at anything to start with, I played loads of sports, sort of bat and ball, table tennis, football for a club and the school and things like that but hockey was the one I really excelled at.....I played county hockey” – (Gregor, 01/11/10)

“I have been lucky to be natural at sports, not top level but county level at most sports” – (Stephen, 22/10/10)

“It did athletics at county level” – (Jonathan, 26/10/10)

“I could kick it further than anyone else and I could touch the crossbar too no one else could. I am ambidextrous at squash I never use to do back hands I would swap hands even as an eight year old. If it was Tennis I would serve right handed then with the left. I kick left footed but I can kick with my right no problem.” - (John, 23/11/10)

John highlighted that his size and strength played a large part in being identified as talented, he matured early and fast. He considered himself a boy in a man’s body and was selected for the men’s football teams. He believed that he had a genetic predisposition for demonstrating exceptional sport talent. In addition Stephen and Gregor provided quotes suggesting they possessed natural talent, in other words good genes (Singer & Janelle, 1999; Baker & Horton, 2004; Gagné 2004 & 2011). With this evidence, ‘Deliberate Practice’ or ‘Early Specialisation’ do not seem likely contributors to the developmental process for golf and sport expertise in these instances.

None of the sample displayed evidence to support Ericsson et al. (1993) ‘Early Specialisation’ in one sport route with ‘Deliberate Practice’, which raises doubt as to whether this theory is valid for these golfers. The same evidence and suggestions are not new and have been discussed in other sport studies (e.g. Baker et al., 2003; Baker et al., 2005; Fraser-Thomas et al., 2008 and Ford et al., 2009).

4.3.3.2 Coaching

Six golfers received coaching, given by either the club PGA professional mainly in a group format or by their father. Group coaching is defined here as a small number of golfers receiving instruction together. This can be a more affordable way for juniors to receive expert advice in comparison to one to one coaching. The topic of affordability and providing an equal opportunity to all sports participants have been previously researched and can limit participation especially in what could be classed and perceived as ‘expensive sports’ (Kay, 2000a) this brings to the forefront the importance of being able to afford golf lessons, which the models discussed in this literature review fail to highlight. In this phase of development the volume of coaching received by each player varied enormously dependent upon the father’s view on coaching. The amount of coaching each golfer received varied between two group coaching sessions per year to weekly group coaching covering several years. This study suggests that coaching, although important in developing the basics, is not an essential requirement for the development of expertise in golf. Other topics were mentioned and seem more important in comparison e.g. participating in a fun (Bengoechea et al., 2004; Garn & Cothran, 2006) and exciting environment with friends (Côté and Hay, 2002a).

“We had group tuition off the pro in the holidays every Monday morning 9-10am. That was the first proper tuition I had.” - (Stephen, 22/10/10)

Two from the sample stated that their father gave them coaching and other golf related studies have also shown this to be relevant (e.g. Hayman et al., 2011). In a junior sport study, Kirk et al (1997) showed evidence that between 6-11% of parents (mainly fathers) were involved with their children's coaching. Although this form of coaching has been shown to exist albeit to a lesser extent, one sample member in this study stated that he would have preferred PGA coaching instead. This suggests that although there are financial benefits in coaching one's own children this is not necessarily the most beneficial way for all children. On this note one sample member stated that he had recognised that his father was possibly not the best coach for him.

“Yeah I have had a few coaches, I would say though the last coaches have been my best coaches. I would have preferred their advice when young instead of dad” – (Mark, 29/10/10)

John revealed that he received no coaching in this phase. Interestingly, this is contrary to many talent development models and literature which consider the coach an integral part of the talent development process as shown in (e.g. Bloom, 1985; Ericsson et al., 1993; Baker et al., 2003).

”I did not have a lesson for the first 3.5 yrs. of playing, sort of self-taught” - (John, 23/11/10)

In conclusion, coaching is not the most determinant element for a young golfer's continuance to a higher level of participation. Social participation and playing golf might have a more probable impact according to these findings.

4.4 Improvement Phase

Improvement Phase		
Names	Ages	Sports
Jonathan	11 to 16	3
Gregor	15 to 17	2
Stephen	N/A	N/A
Stan	15 to 16	4
John	N/A	N/A
Mark	16 to 21	2
Charlie	13 to 16	1
Average start of phase age 14	Average end of phase age 17.2	Average No. of sports 2.4
Average time spend in phase 3.2 years		

Table 4 - Improvement Phase Age Ranges and Sports Played Including Golf

The average age beginning this phase was fourteen for those golfers who experienced this phase (Stephen and John did not experience this stage), Jonathan began aged eleven, whilst Mark began aged sixteen. Note that this age range does not conform to the tight age ranges of ‘DMSP’ for example specialisers aged thirteen to fifteen. The improvement phase starts when young golfers change their motivation for participation from a fun approach to expressing a strong desire for self-improvement (c.f. Siedentop, 2002).

“I had no aspirations from a professional playing point of view at all but I enjoyed playing the game.....I was enjoying improving” – (Gregor, 01/11/10)

“To improve I realised I had to do what was right for me rather than other people, if you wanna get any good you got to do that” – (Jonathan, 26/10/10)

This trait has been proposed as an excellent indicator of adult attainment (Abbott & Collins, 2004). Critical episodes (Bailey & Toms, 2010) were identified and contributed towards this phase shift towards improvement. Reducing their golf handicap and realising and enjoying success was the other. The entire sample expressed these critical incidents in their golf development.

Self-determination theory (Ryan & Deci, 2000a) and commitment were traits that also emerged in this phase, which agree with previous research concerning psychological states of mind for talented athletes (MacNamara et al., 2010). Playing golf with family members was virtually non-existent and was replaced by junior members. Strong friendships were created with other junior golfers and this was used to great effect. Juniors regularly compete with each other in imaginative ‘non-rules’ (Rules & Amateur, 2012) golf competitions/ challenges. This is especially pertinent during the school summer holidays where all of the golfers immerse themselves in the golf club environment all day and every day. Friendly unofficial competition referred to as ‘competitive deliberate play’, forms the most significant theme in this phase. The sample also competes in golf tournaments to reduce their golf handicap. Dedicated practice began depending on the player’s preferences for improvement. Coaching continued to be part of this phase but changed in nature from group coaching to individual coaching. Responsibility to finance the coaching was shared between parents and juniors. The amount of coaching received varied considerably based on player preference.

Five of the sample experienced the ‘improvement phase’; however two missed this phase out altogether and progressed to the elite phase. Explanations were given for this; John stated that shortly after starting the game aged twelve he immediately developed an aspiration to be a professional golfer. John displayed strong evidence for self-determination as shown in

many studies relating to expert performance (e.g. Bloom, 1985; Ericsson et al., 1993 and Gould et al., 2002).

“I knew I wanted to be a pro literally within six months of starting” - (John, 23/11/10)

Stephen provided a more complicated account of why he omitted the ‘improvement phase’. He explained that his family had moved house and it was further away from the golf course and as a consequence he stopped playing golf for one year. After being reprimanded by the golf club junior organiser for not using his membership he restarted playing aged fifteen and he continued to play frequently for two years before taking it very seriously.

“I returned to the golf course and got back into it.....the options I took at school were the least so I could play golf, I would have been at the golf course loads.....if I wasn’t at school I would have been there five or six days a week I reckon about forty hours a week from age seventeen” – (Stephen, 22/10/10)

4.4.1 Developmental Activities

4.4.1.1 Playing other sports

Côté & Hay, (2002) prescribe a reduction in the number of sports in ‘DMSP’ as participant’s progress through the stages. The findings of this study agree with ‘DMSP’ if we consider the average of the golfers but not conclusively with each sample member. The average number of sports played including golf was 2.4, however the range of sports played varied between one and four. This suggests that the number of sports played is very dependent on the player’s preference and it could possibly be influenced by the parent. Although this study only examined a small group of golfers the results suggest that prescribing a set number of sports at a set age in general does not conform to young golfers.

Mark remarked that his father was a football coach and he felt obliged to continue in football although golf was his passion, which was an example of parental pressure. In comparison Charlie decided to focus his efforts solely on golf and dropped all other sports. In a MacPhail & Kirk (2006) study of young specialising athletes at an athletics club the total number of sports participated in including athletics was two-three, which was reduced from the previous sampling phase they explored in an earlier study (Kirk & MacPhail, 2003). With such variance in golfers and such a low sample number it is difficult to come up with a theory about how many sports should be played other than they do reduce on average.

“If it was not football it was golf and swimming, I would get dropped off by dad at The Grove Leisure Centre to play golf, then swim and then play golf again” – (Mark, 29/10/10)

“Yeah I just thought that I can’t keep on playing three sports and being reasonable at all of them, I decided I wanted to do one. I just thought that I need to choose one sport and be as good as I can at that” – (Charlie, 29/09/10)

Stan did not alter the number of sports he participated in and stated that he enjoyed them all. These results provide evidence to question the view to reduce participation in sports as prescribed by ‘DMSP’. However, the entire sample showed some support for the ‘Early Diversification’ with later ‘specialisation’ suggestion for ‘DMSP’ (Côté & Hay, 2002a; Côté et al., 2009) as opposed to the route of ‘Early Specialisation’ with ‘Deliberate Practice’ (Ericsson et al., 1993).

4.4.1.2 Competitive Deliberate Play

This developmental activity is an adapted version of 'Deliberate Play' and was by far the most prominent activity experienced in the 'Improvement Phase'. The entire sample stated that everything they did with their peers was competitive and that they got a great deal of pleasure from playing competitive golf with them. This strong association between enjoyment in sport and spending time with friends has been shown to exist in other studies (MacDonald et al., 2011).

“We would go down the short game area and we would do like ten pence a shot, just me and my mate use to do that we would pick a spot and it would teach you to be competitive” - (Jonathan, 26/10/10)

It was noted that the entire sample expressed a strong need for competition and they all gave evidence to suggest they possessed a winning mentality.

“I wanted to win with everyone I played against that is much more fun” - (Mark, 29/10/10)

“We use to have a nice little battle going on who was going to be the first to single figures who was going to be the first to break par that sort of stuff” – (Stan, 04/10/10)

The data suggests that competitiveness is very important in elite level development (Gould et al., 2002). This contradicts some research on talent development, where there has been the suggestion of de-emphasising the need for competition to promote future participation (Côté et al., 2006). The comments made above infer that the sample believed in themselves and their ability to win. Gregor provided some evidence to show the significance of competitive deliberate play with fellow talented peer juniors at the golf club.

“There was a group of us near on sixteen years old of about forty of us in a junior section, which about ten of us have turned professional now.....the competition was good for that.....you are gauging your performances on each other aren't you with others better than you, it is a bit inspirational to beat them. Everyone wants to stay ahead of everyone”
– (Gregor, 01/01/10)

These quotes suggest that the young golfers possessed strong perceptions of competitive spirit. Scanlan & Lewthwaite (1986) studied seventy six competing male wrestlers aged nine to fourteen and the results suggest that those young wrestlers who perceived themselves with more ability experienced greater enjoyment than their counterparts. This evidence contributes towards the notion that competitive deliberate play contributed towards the young golfers enjoying themselves at the golf club. The competitive deliberate play activities experienced were of a high quality according to the data and it could be argued that the sample learned implicitly through these activities (Stadler & Frensch, 1998). In addition, Kirk (2005) suggests that quality early learning experiences through appropriate sampling and play activities develop perceptions of competence, which lead to the motivation to continue. This was evident in this group of golfers during this phase.

4.4.1.3 Coaching

Four out of the five golfers received mainly individual coaching from the club PGA professional. Three of the sample also received county coaching in a group and individual format. The volume of coaching received varied considerably between the golfers, two received regular individual coaching, one received some and two received virtually none, conflicting with the view that the coach plays a central role in the pathway to elite level performance (Côté & Hay, 2002; Côté et al., 2007). However, there was evidence presented

by those who had received coaching to express that they enjoyed it, not only the actual process of being coached but the fun peripherals. For example Gregor stated that he received free coaching and range balls in exchange for collecting the balls at the golf range and filling up the golf range dispenser, which he enjoyed.

“I use to turn up and make sure the balls were topped up that was fun, I would spend most of the day up there for next to nothing” - (Gregor, 01/01/10)

This evidence shows that in addition to a coach’s role to educate, they can also contribute towards making the whole experience enjoyable and supportive (c.f. Scanlan & Lewthwaite, 1986). Toms (2005) researched young cricketers and noticed that experiences between them and the coach were positively correlated towards a phase shift from sampling to specialising. This evidence highlights just how important significant others can be for the development of talent. Coaches also helped indirectly by providing peripheral support, e.g. offering practice balls to use.

“There were also a big bag of practice balls for the juniors to practice with and you just used to bring them back and put them in the shop” – (Gregor, 01/01/10).

Coaching was financed by parents for three of the sample, highlighting the importance of the socioeconomic status theme (Kay, 2000b; Bailey et al., 2010). It was also discovered that coaching was paid for by the players themselves using monetary prizes from competition winnings, which was evidence for early success to some degree.

The local club PGA professionals were utilised for coaching and they were chosen out of convenience rather than for any special coaching skills, which contradicted evidence suggested in the talent study of Bloom (1985). None of this sample provided evidence of

their parents driving the talent development process and in three cases the opposite was discovered. These parents preferred further education instead of a career in professional golf. It should be noted that the sample for Bloom's (1985) study was American athletes and in this study the subjects are English golfers. There are considerable differences in the structure of coaching support between the two countries and this could have contributed towards the different opinions from the parents view. American parents were biased towards sport expertise whilst in the U.K. the priority for parents was academic education.

4.4.1.4 Structured Practice

The data shows that three out of five golfers experienced structured practice, which is defined as any monitored extrinsic golf training activity designed to improve or maintain proficiency and is generally focused on outcomes (Côté et al., 2003). When questioned about practice many of the golfers understood it to be hitting golf balls on the golf range or practice area and working on their short game. There is a lack of research defining what golf practice represents. Ward et al. (2007) also states that practice is not fully understood and defined. He further states that the microstructure of practice, being the specific activities in which individuals experience during practice and the way they are made up, has not been researched. This raises concerns when young golfers are expected to practice to improve without having a clearly understood definition of what actually constitutes 'practice'.

Jonathan and Mark stated that they participated in structured practice but split the time equally between practice and actually playing golf.

“I just think you work on the technical aspect of your swing on the practice ground and you learn how to play golf and score out on the course, you have to do both” -
(Jonathan, 26/10/10)

Charlie and Stan discussed that they did not participate in structured practice often and Stan stated that he “hated” practice.

“I use to hate practicing I was always about playing” – (Stan, 4/10/10)

Certain structured practice can only be performed if the golf club has adequate practice facilities or if there are local driving ranges. Practice facilities varied significantly from poor to excellent and all golfers who stated that they played on courses with poor facilities tended to play more than practice.

“The first golf course didn’t really have much it did have a putting green so you could hit some putts but it wasn’t until I moved to the second club I was at that had that range of facilities” - (Gregor, 01/11/10)

This raises important issues about special types of practice that have been suggested as essential for elite level demonstration (Ericsson et al., 1993; Ericsson, 2007). Simply prescribing practice to become better does not address the fundamental issues of how this is possible when facilities either cannot support it or access is not available. Practicing golf by hitting golf balls at golf facilities is a relatively new concept; this is highlighted by all the golf ranges which were built in the 1980’s. Many golf driving ranges were still being built and not all the sample members had a local golf range. Two of the sample specifically brought this up as an issue with regards to practicing. Evidence was given to suggest the type of golf course one plays at influences how one develops which, will be discussed later.

“And there weren’t any ranges back then which was probably going back to mid eighties” – (Stan, 4/10/10)

“When we were growing up there were hardly any driving ranges” – (Charlie, 27/09/10)

Studies demonstrate that the size of your home town or city can determine your ability to access practice facilities (Bruner et al., 2011) but the researcher found no studies which addressed this finding i.e. that the place of practice is not fit for the purpose of practice. It is noted that some of the golfers were subjects of circumstantial luck (Bailey & Toms, 2010) with regard to whether their golf club possessed or did not possess adequate facilities.

4.4.1.5 Unstructured Practice/ Implicit Learning

Unstructured practice is defined by Côté et al. (2003) as any informal golf related developmental activity, which contributes towards improving or maintaining proficiency. The sample suggested that playing nine or eighteen holes represented this type of practice. Several of the sample mentioned trying to ‘score’ on the golf course, which is a golf cultural term referring to the ability to shoot a low score on the golf course. But although ‘scoring’ was mentioned the sample did not explain how they managed to improve their performance simply by scoring.

“I don’t spend hours and hours of practicing I think it has been far more useful personally to play” - (Charlie, 27/09/10)

“I use to hate practicing I was always about playing erm because I wanted to score. For me it was see how low I could score rather than working on technique” (Stan, 04/10/10)

These findings present an intriguing case for the possibility of learning golf implicitly instead of the explicit approach that defines most other forms of coaching (Masters, 1992). It

was also stated by the sample that they played vast amounts of golf especially during the summer holidays. The entire sample confirmed that their parents dropped them off at the golf course and as a result they played golf all day. It is therefore possible that in just one summer holiday period the sample could have amassed over five hundred hours worth of golf experience split between the developmental activities.

“It was a case of dad use to drop me off at the golf course at 7:30am then pick me up at 7:30pm during the holidays and weekends and I just use to spend all day at the golf club.” – (John, 23/11/10)

“In the summer lapping round, yeah it would heavily weighted in summer it is all day at the golf club. I did the usual mainly at weekends” - (Gregor, 01/01/10)

The entire sample of golfers that played in the improvement phase participated in golf club stroke play competitions. Those golfers expressed how this contributed towards their improvement resulting in a reduction of their golf handicap. This concept has been identified previously called ‘Deliberate Experience’ in which the learning and improving occurs by repeated experience (Janelle & Hillman, 2003). They also used these competitions to monitor their improvement by how high their handicap was, which is demonstrating how the sample control their learning and is a tangible way to discover learning. Charlie stated that he had played in many junior competitions and that experience contributed towards making him a better player. This view was also suggested as important by golf coaches exploring mediators of talent development in young golfers (Stoszkowski, 2011).

In conclusion motivation to improve was found to be the most significant determinant for participation in this phase. Several developmental activities existed which contributed towards acquiring more expertise but the most significant activity was competitive deliberate

play. There was a relationship identified between the end of this phase and a marked reduction in the sample's golf handicap.

It should be noted that this developmental activity continues until the golfer turns professional but the context of what has been discussed remains the same.

4.5 Elite Phase

Elite Phase		
Names	Ages	Sports
Jonathan	16 to 22	1
Gregor	17 to 18	1
Stephen	17 to 19	1
Stan	16 to 19	1
John	12.5-20	1
Mark	21 to 25	2
Charlie	16 to 21	1
Average start of phase age 16.5	Average end of phase age 20.6	Average No. of sports 1.1
Average time spend in phase 4.1 years		

Table 5 - Elite Phase Age Ranges and Sports Played Including Golf

The average starting age was 16.5, which coincides with a potential school leaving age. The data shows that the point at which the sample decided to pursue a career in golf marked the start of the 'elite phase'. Critical episodes which contributed towards this phase shift were experiencing further success e.g. winning golf competitions and further reductions in their golf handicap. The following are some quotes from the golfers making their intentions clear.

“I got from 5 to scratch in a year and got down to plus figures the next year. In two years I went from 5 to +2. I improved quite quickly” – (Jonathan, 26/10/10).

“All I wanted to do was play PGA European Tour” – (Stan, 04/10/10)

“Age seventeen I was at the golf six days a week for eight or nine hours in between practice and play talking to the PGA professionals” – (Stephen, 22/10/10)

“During that year I won five major amateur events at the club.....I did not want to spend another year to get my handicap any lower and play for amateur competitions. I just wanted to turn Pro, I gotta reach my goal” – (Stan, 04/10/10)

“By the time I was fourteen, I had already found out all about the PGA and what I needed to do to turn Professional” – (John, 23/11/10)

“I wanted to be the Tiger Woods of my Era” – (Charlie, 27/09/10).

High levels of dedication, motivation and volition were shown to drive the sample in order to reach their goal of turning professional, which has been highlighted as important in other sport studies (Ward et al., 2007). The sample gave evidence that they took ownership/regulated their development for example by controlling their practice routines when they perceived it necessary or paid for golf coaching again when it was deemed necessary. Five of the golfers decided they wanted to be golf professionals between the ages of sixteen and seventeen. Two were coerced into further education instead of golf as their parents prioritised an academic education, which is mirrored by a study by Côté (1999). The average age they turned professional was 20.6. The sample experienced on average 12.2 years of golf then turned professional. This average is slightly above the ten year rule evidence from Simon & Chase (1973) if we consider the whole domain experience as contributing towards expertise.

However two of the sample reached professional level with nine years' experience (John and Stan). This contributes to other evidence that suggests expert performance can be reached with less than ten years' experience (c.f. Helsen et al., 1998 & 2000). Considering that the entire sample of golfers either enjoyed or loved practicing golf no evidence was provided to concur with 'Deliberate Practice' theory of Ericsson et al. (1993).

Evidence was given suggesting that some of the golfers were self-regulated learners (Pintrich & De Groot, 1990; Zimmerman & Kitsantas, 1997; Jones et al., 2007; MacNamara et al., 2010). For example supplying evidence that they recognised they needed to try harder, practice more or that they found themselves in a position to win and seize the moment.

“I have this mind-set that if I ever get the chance to win I always think I better make the most of this.....I am gonna grab it with both hands and I have won a decent couple of events” – (Jonathan, 26/10/10).

“I remember one week I was meant to play the Masters and I was playing so bad, I came up with a new routine the week before where I would spend five hours per day at the golf course. Three hours short game practice then two hours putting. I did that all week without playing the course. I did not even go for the practice round. I finished third, that taught me to keep my practice varied and not do the same stuff all the time. If you play a tournament and you are driving badly you gotta go and fix your driving. You know whatever part of your golf game that you think needs fixing do it” – (Jonathan, 26/10/10).

“Once I realised I was not as good as I wanted to be then I would put more into it” – (Mark, 29/10/10).

“I played with friends but did what was right for me” – (Jonathan, 26/10/10)

Mark’s quote suggests his motivation for better performance or self-improvement was intrinsically strong and that he had a certain level of control.

This allowed the players to monitor their own progress and develop accordingly (MacNamara et al., 2010). Their aspiration to turn professional mainly manifested itself around school leaving age (sixteen to seventeen) or after leaving further education. Six of the golfers decided to focus on just one sport with the other playing two sports. This is a striking resemblance to Côté et al. (2007) investment years prescribing efforts in one activity to reach elite level performance.

The entire sample’s relationship with peers changed in accordance with their personal development goals. This meant less involvement with social developmental activities for example, competitive deliberate play. It was replaced with more serious individual developmental activities for example, structured practice. Competitions continued to play a role in self-development especially through handicap reduction, which is further evidence for self-regulation. This created a challenging environment, which has been shown as being beneficial for talent development (e.g. Martindale, 2010). The golfers referred to playing in lots of golf club stroke play competitions. This concept has been identified previously in research called ‘Deliberate Experience’ in which athletes learn and improve by repeated experience in the domain (Janelle & Hillman, 2003). Before discussing the development activities to accompany this phase all golfers were golf club members. The data suggested that junior club culture was less important in this phase due to the various routes golfers took during their development (see quotes in section 4.5.1.2), which sometimes did not require the help of other junior golfers. Some golfers chose a solitary view on practice, some chose to

play socially with others and some preferred a mix of these. This variety of their practice attitude towards development suggests that junior club culture was more important in the earlier stages of development and not in this one. Lastly researching junior golf club culture is something that has not been explored retrospectively for elite performers from beginning to turning professional, more research in this area could further add to the findings of this study and add to the body of knowledge.

4.5.1 Developmental Activities

4.5.1.1 Coaching

Club PGA Professional's and Tour Players gave golf coaching advice and six golfers mentioned receiving help in the following areas: planning practice sessions, technical advice, mental skills advice, course management advice, motivational talk and confidence building. The sample enjoyed a working relationship with the professional and was perceived as very beneficial. According to Stephen just being around the PGA professionals was seen as part of the development process due to discussions taking part, which included receiving advice.

“Age seventeen I was at the golf six days a week for eight or nine hours in between practice and play talking to the PGA professionals for advice” – (Stephen, 22/10/10).

“We worked really hard on certain stuff erm just to sharpen everything up and I stayed with him till I turned pro” - (Stan, 04/10/10)

“I would get England squad training in winter, then I went to America and I had a coach out there with me every week” – (Jonathan, 26/10/10)

“It was not so much technical but playing the game. My coach lead the Open in the 1990’s he wanted to see a congregation of balls when I finished, that’s when you know that you have improved” – (John, 23/11/10)

“The last coaches I had had have been the best coaches, I wish I had their advice earlier” – (Mark, 29/10/10)

Jowett & Timson-Katchis (2005) studied a sample of Greek Cypriot national level swimmers of similar ages and found similar findings. The coach was very helpful and significant in the coach/ player dyad for talent development. Fifty percent of the sample that experienced coaching paid for the help of a Tour Player. This was funded from competition winnings and from part time work bringing the reoccurring subject of finance. The sample stated that advice provided by the Tour Player was expensive but invaluable. These findings suggest that a transition occurs over the three phases of development, namely coaching type, funding sources and control. Coaching begins with parental contributions and control, transforming to a hybrid of this and player control, transforming further to complete player control.

“From either working or playing, it was £100 a lesson but you get your money’s worth out of him I got to say, he would spend an hour and a half with you and he has got the sort of knowledge that you can only learn by being out on tour.” - (Jonathan, 26/10/10)

Three of the sample stated that they believed only tour players were qualified to provide specialist coaching information they required. This agrees with research by Baker & Horton (2004) who discuss the requirement for athletes to access high quality coaches for development. In addition Bloom (1985) highlighted that talented young people had access to

high quality coaches. Another study by Deakin & Cobley (2003) suggests that knowledgeable coaches influence the process of skill development. Several of the sample managed to access tour players for coaching as a matter of circumstantial luck (Bailey & Toms, 2010) since those players were attached to the golf club at which they practiced.

It has been noted in other studies the importance of a ‘Master Coach’ in talent development in young people (Bloom, 1985) and in this study Tour players fill this responsibility. However, there is also a considerable difference to the findings of Bloom (1985) in that the golfers paid for this specialist advice instead of the parents, which suggests ownership for their development. This raises some issues with regard to the models of development discussed in this study so far, which do not tackle the financial aspects of development. If a player needs to dedicate their time in talent development activities to become expert how can they find time to work to pay for coaching advice.

“I paid for them myself, winnings from the golf club basically, I won them. I don’t think I have ever paid for a golf lesson” – (John, 23/11/10)

John stated that he received very little coaching although he did receive some ‘Tour Player’ advice with a slight twist. He mentioned watching videos of Nick Faldo and attempted to copy the physical moves. This further highlights control and planning for their personal development within their resources.

“I am going to watch him and copy everything he does, copy the movements in the mirror and exactly the same and that is all I did” – (John, 23/11/10)

4.5.1.2 Structured Practice

Many golfers discussed practicing in the form of hitting lots of balls. Stephen and John highlighted their strategy for improvement, which was to focus and show evidence of tangible improvement. This would mean hitting lots of golf balls with various golf clubs and when finished look for a tight shot dispersion.

“I had to do at least three or four hours. I would do a round of golf and then three or four hours of practice. I never use to be in the clubhouse till dad picked me up at 9 o clock at night” - (John, 23/11/10)

“Mostly practiced short game” (Jonathan, 26/10/10)

“I would be putting in more time and hours, I would be hitting about three hundred balls per day. Some technical practice after lessons and I enjoyed spending time there on my own doing it, it was rewarding. As you got better you could see that your shot dispersion was getting closer and closer at age eighteen six days per week and eight hours per day” - (Stephen, 22/10/10)

“If I needed to package it up for development I would say ten percent lessons/ tuition, sixty percent learning from playing and thirty percent practice” – (Charlie, 27/09/10)

This type of practice was focused and had purpose, similar to ‘Deliberate Practice’ (Ericsson et al., 1993) except instead of it being ‘not inherently enjoyable’ it was expressed as very enjoyable. This suggests a rethink on how enjoyment can be part of ‘Deliberate Practice’ which other studies confirm (Helsen et al., 1998; Fraser-Thomas et al., 2008).

4.6 County and National Talent Identification

From a sample of seven professional tour players, three were selected and identified as talented to represent their county and one represented England. The entire sample displayed high levels of skill and determination especially through the ages of sixteen to seventeen with handicaps as tangible evidence. One golfer had a handicap of +3 and did not represent county level, even though the The English Golf Union recognises a +3 handicap as the level required to represent the national men's team. Four of the sample were missed out altogether and did not represent their county or national level, which in some cases excluded them from free county coaching. This evidence suggests that 'talent identification' programmes at county golf level either do not exist or are not fit for purpose since these golfers achieved talented PGA professional golfer status. However it should be noted that this sample would have been county golfers on average fourteen years ago and this study did not analyse the identification and selection process today.

This information should be of interest to county partnerships and national governing bodies as young developing golfers require assistance. It has been shown that some golfers in this study were self-funded and were not adequately supported on many levels. These findings contribute towards the current body of evidence on the side that some talent identification programmes might not work (e.g. Côté et al., 2006; Vaeyens et al., 2007; Gray & Plucker, 2010).

In conclusion the desire to be a Tour Professional was found to be the most significant reason for continued participation. Specialist coaching was found to be important in this stage and individualised programmes of practice mainly in structured and unstructured form

were experienced to develop expertise. The decision to turn professional revolved around school, college leaving age.

4.7 Chapter Conclusion

This discussion considered the themes, which were constructed from the findings of this study in that three phases of development were experienced regarding talented PGA golfers. This was related to existing academia and theoretical frameworks associated with sport talent development and practice theory. PGA Professional golfers gave evidence to highlight what developmental activities they experienced during their amateur years through to turning professional. Reasons were also given explaining their continued participation concerning golf and this was related to current research. In the following chapter conclusions will be made and the potential implications of this study for future golf talent development will be given. In addition the limitations of the current study will be identified and suggestions made for future research.

Chapter 5: CONCLUSION

5.1 Introduction to the Chapter

This chapter will cover the key findings associated with this study in using the chosen methodology. It will also discuss the limitations of the study and offer suggestions for future researchers relating to the golf talent development process.

5.2 Summary of Research Findings

The purpose of this study was to explore and attempt to understand the developmental process in which young golfers' progress over time and reach a level that they perceive as good enough to turn professional. The evidence was compared to current theoretical frameworks of sport participation and talent development (Bloom, 1985; Côté et al., 2007). In addition, consideration was given to 'Deliberate Practice' theory, which some scholars mention is essential to reach and reproduce expert level performance (Ericsson et al., 1993; Ericsson, 2007).

Evidence was provided to show that the family is extremely important for the initiation and development of UK PGA golfers. This was evident with regard to introducing their offspring to golf and with long term financial support, for example paying membership fees and transportation to and from the golf course. Other studies supporting these findings have been well documented in talented athletes/ sportsmen (Kirk et al., 1997; Côté & Hay, 2002; Wolfendon & Holt, 2005). The golfers displayed limited evidence towards developing their skills as described by the sampling route of 'DMSP'. Golfers, with one exception started from a broad base of sports reducing them as they got older until they only played golf with the intention of being a golf professional (see Tables 3, 4 & 5). The researcher has

postulated that three phases of development exist based on the golfer's motivational attitude to golf (see Figure 5 & Appendix H). These were labelled the, 'Fun', 'Improvement' and 'Elite' Phases. This study suggested that the motivation to become a PGA professional golfer was very high, notably for playing golf, competing and practicing golf especially in the UK summer months. The winter months were difficult due to light and weather inhibitors. Golfers were introduced to the sport between the ages of five to twelve and this was shown to be mainly dependant on whether the parents were golfers, with one exception. It is not the researcher's intention to categorise all golfers in an age and stage development model similar to Côté et al., 2007 but to simply provide the results and suggest a larger study within the UK could be more robust. It is not the ages of the golfers in stages which are important but the support, enjoyment and mental attitude of the players which are the key themes.

Evidence was given to suggest that coaching was beneficial for the development of golfers in all the phases of development but that the nature of the coaching varied. The results show that coaching played a large part in introducing golf to young people and it changed as golfers got older and their demands become specific to their skill. The results highlighted that there was a large variance in the amount and type of coaching received. There was evidence to suggest that some elite phase players sought and paid for coaching advice themselves through part time work and used tour players and also PGA coaches. PGA coaches sometimes offered their services to elite phase golfers for free at their home golf clubs, which demonstrated one of many positive advantages of being a golf club member due to PGA coaches mainly residing in private members clubs. This was also a demonstration of luck, in addition to the PGA coach the junior organiser was another significant other, which golfers mentioned played an important role in their development. One particular golfer mentioned that if it were not for the junior organiser he would probably be playing football instead of

golf. This evidence reinforces the importance of the golf club, which contains people who care about their members and who can help and give advice. This highlights the importance of the sports club nature discussed in the literature review. Evidence was provided to suggest that both PGA coaches and tour coaches were able to motivate golfers to practice and help with confidence and technique. However coaching was not an integral part of the developmental process for all the golfers, evidence was provided to show that some of the golfers were extremely motivated and seemed to know exactly what they wanted and how to get it without much help from coaches.

Some golfers mentioned that they had a natural advantage in golf development because they were gifted. This implies that they possessed genes for exhibiting extra ordinary golf performance. In addition to being multi-talented in sport as discussed earlier (Gagné, 2004 & 2011). With regard to the golfers that did not receive much coaching and to the few who mentioned they did not like it or hated it, these golfers highlighted that playing lots of golf and learning implicitly (unstructured practice) was more very beneficial for them. This is quite compelling evidence showing that some golfers have a natural talent no doubt shaped by their company (social) and environmental factors.

Starting age in this sample of golfers was an insignificant factor since all turned professional between the ages of eighteen to twenty one, which could be considered a reasonable tight dispersion. One golfer turned professional later at twenty five this was discovered due to parental pressure to attain a University degree

The results seem to suggest some correlation between leaving school and wishing to train to become a golf professional since the ages that these decisions were made by five of the golfers were found to be mainly between sixteen and seventeen. Concerning the other two

golfers, one went to University and the other had already decided to pursue a professional career at age 12.5 suggesting he had an early strong control over his future career.

There was conclusive evidence that showed golfers engage in practice for extensive periods of time, for a minimum average period of ten years. The main difference between this and to the theory of 'Deliberate Practice' is that golfers enjoyed, loved and in some cases were addicted to practice, this addiction phenomena has been noticed to a certain extent (thirty four percent) in Australian athletes in a diverse range of sports (McNamara & McCabe, 2012). It was discovered that generally ten years' worth of experience was sufficient to turn professional but one golfer managed it in nine.

This study was able to label practice for golfers, which has not been identified before. In particular the researcher discovered a form of practice and play, which was labelled 'Competitive Deliberate Play'. This type of practice consumes the life of young golfers experiencing the 'Improvement Phase'. It was shown that in the summer holiday's golfers would play golf competitively with their peers all day. Evidence was given to show this type of activity to be addictively fun and very competitive. It was a concept heavily associated with friendships and highly attributable with the golf club environment. The club environment contained an abundance of other like-minded junior golfers to compete with and in some especially lucky cases the likeminded golfers were very high calibre golfers in the making. This shows and as mentioned in the literature review, the impact of luck on talent development. It is near impossible to determine one developmental activity, which is responsible for the emergence of talent in golf however the 'Competitive Deliberate Play' activity within the 'Improvement Phase' was something all the golfers gave strong evidence towards. It should be mentioned that golf unlike other sports is not a hard cardiovascular

sport and so golfers can literally play golf all day for example three rounds or fifty four holes, however the same could not be said of developing sprinters, middle distance runners or swimmers as fatigue would set in. Golf is very unique in that a high number of young people will start their experience in a social environment to practice and play and this can help them enjoy participation more to continue, quite different from the other sports e.g. athletics.

The study highlighted that golfers in this study were extremely dedicated to their sport especially in the improvement and elite phases. Words were used for example “love, addiction, focused and determined “ to name but a few. This demonstrated the importance of the psychological aspect to development as a player (Abbott et al., 2005; Jones et al., 2007; Bailey et al., 2010).

An all-encompassing model of golf talent development needs to fully consider many other influences from the biopsychosocial domains for example, socioeconomic status, parental influence, peer influence, preferred practice strategies, practice facilities at the home course and motivation, which is not an exhaustive list therefore the model suggested (Figure 5.) can be used as a starting guide for other researchers to build upon.

There was evidence to suggest that golf is not an ‘Early Specialisation’ sport but instead is a ‘Late Specialisation’ sport, the starting age did not seem important in this sample of UK golfers as most wished to pursue the elite phase near the same ages namely sixteen to seventeen. Golfers in this study turned professional at an average age near twenty and a half.

In summary from these findings the journey that a young boy golfer takes to become a PGA golfer involves, playing lots of sport when young and reducing them with age, family support in financial and tangible forms, fun, encouragement from parents and significant others, motivation to improve, golf club membership or access to a golf club to pay and play,

golf club accessibility, official competition for handicap, unofficial competition and rivalry with friends, luck, PGA individual and group coaching, tour coach advice, personal preferential practice and play and a burning ultimate desire to turn professional at golf.

5.3 Future Research Possibilities

This study has suggested that talented golfers are also talented in other sports; this was a profound finding and concurs with the work of (Bridge & Toms, 2013). It seems that genetics or a genetic predisposition to playing sport (Gagné, 2011) might indeed help golfers reach a top level of play although this is something that needs further clarification by other scholars. A larger study within the UK could contribute to researching this phenomenon further to discover if professional golfers are multi-talented in sport.

In the process of researching the golf club distance, the salient factor of considering the golf course facilities and support available for young golfers to develop would be very beneficial. Evidence existed in this study to suggest that if a golf club had poor practice facilities then the golfer left and found a new golf club. It was also discovered that the type of practice preferred by the golfer was proportionate to the practice facilities on offer. For example if there was no practice area for short game then young golfers would play more and practice on the golf course instead.

Finance for golfers is a big issue especially for those from low socioeconomic status families (transportation, green fees funding, golf kit, golf competitions entry fees, food at the golf club and more), the evidence suggests that golf is a middle class white Caucasian sport in the UK. This needs further research to see how some of the England golf (2009) funding can outreach to those in need of funding so that many more golfers can participate in the game, inclusion instead of exclusion.

County coaching selection criteria must be mentioned here as an area for future research as the golfers in this study who represented European Tour were missed altogether by their county region and there were several examples of them. To exclude obvious talent like this is a waste of the funding given to England Golf (2009) and is a concern for the future. This suggests that work needs to be done to address ways to either identify talent or distribute funds widely to include golfers then watch talent emerge, the later being more suitable in line with current research suggesting talent ID is not fit for purpose.

5.4 Limitation of the Study

It should be noted that there were limitations within the study, which require consideration. There were only seven PGA golfers used as the sample, which makes building a theory and a model very challenging in relation to the early developmental experiences of professional golfers. In addition the sample of golfers all came from one region of England and the sample of golfers were selected from the top ten of the previous year's order of merit where some golfers played in more events than others. This study researched golfers which were not currently competing full time on a major tour (US Tour, European Tour). Lastly the researcher is a PGA professional golfer and researcher bias could be considered limiting to this research.

5.5 Concluding Remarks

This study has shown that the early developmental experiences of talented professional golfers are unique, diverse and are non-linear. This raises some questions about the effectiveness and appropriateness of some models of development (Balyi & Hamilton, 2004; Côté et al., 2007). The golfers in this study experienced various developmental activities on the pathway to professionalism, which for many were influenced by social,

environmental and psychological factors. Some of these factors could be controlled or influenced and others were fixed. The study did provide evidence suggesting that ten years' worth of experience was the minimum period of time required to turn professional, however one golfer managed to turn professional with nine years' worth of experience.

The importance of the family was a very notable feature of this study, the family helped introduce their child to golf, played with them early on and bought golf clubs and helped with transportation to the golf club therefore they significantly contributed towards the costs and therefore their socioeconomic status was an important factor to consider. Joining a golf club was another significant feature of this study. This did not happen immediately with every golfer but membership brought many benefits including social support, competition and provided a place for practice and to be around PGA professionals and good players.

There was evidence gathered to suggest that competition against peers especially in the 'Improvement Phase' of development was shown to be motivational. This competitive spirit was found to be extremely enjoyable contributing towards continued participation.

The findings from the study suggest that golfers practice depending on their own preferred learning method, for example some golfers preferred to play and score and others preferred to practice by hitting balls at the practice area and driving range. Relating to this was evidence to demonstrate that the type of practice a golfer engages in is associated with the quality of golf club facilities available. These findings are important for coaches to recognise if they are suggesting possible practice routines that might not be possible at the golfer's home golf club.

Golfers provided evidence to suggest that they control the process of development in their later years (Elite Phase) including seeking out advice. It was demonstrated that several

golfers paid for advice from PGA professionals and Tour golf professionals on various topics for example, golf swing technique and tour management experience. Bloom (1985) references the importance of 'Master Coaches' in the careers of sport champions and those findings are reiterated in this study of elite PGA golfers.

The study provided evidence to suggest that elite PGA golfers are talented in at least one other sport and that they possessed high levels of motivation to get to their level of expertise.

The author has attempted to produce a model for golf development. It is intended that this model can help NGB's, coaches, parents and players on paths of improvement in golf.

Chapter 6: APPENDICES

6.1 Appendix A: Example Letter of Invitation to Participate in the Research Study

I am writing to you to invite you to take part in a research study I am conducting for the qualification MPhil (B) Sports Coaching, which is supervised by Dr. Martin Toms of The University of Birmingham. I am researching 'Elite PGA Professional Golfers' and I would like to ask you some questions by way of an interview at your discretion. The interview will be recorded so that I can transcribe the details, which you will be sent a copy. Once you read over the transcript you will have the opportunity to change the replies if you do not feel it gave an accurate representation at the time.

There are no known risks for your participation in this study but you may leave the study at any time. All information you supply will be kept safe and strictly confidential. All the names of people you give and names and addresses, golf club names etc. will be given a pseudonym to keep confidentiality. The only person who will have access to this information is my direct supervisor.

If you would like to take part please read the attached letter and return it to me at your earliest convenience.

6.2 Appendix B: Example of the Informed Consent Form

I, _____(please print name)

Certify that I give valid consent and that I am voluntarily giving my consent to participate in the study entitled, "Early Learning Experiences of Successful PGA Professional Golfers" being conducted by Adrian V Cafaro from the University of Birmingham.

I certify that the objectives of the study, together with any risks associated with the procedures carried out in the study, have been fully explained to me by Adrian Cafaro and that I freely consent to participation in these procedures.

Procedures:

1. I am being asked to answer questions at an interview enquiring about my early learning experiences as golfer up until turning professional.
2. My consent is completely voluntary and I may withdraw my participation from the study at any time
3. All information you provide will be kept anonymous and kept completely confidential.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this research at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that all data will be anonymised in order to protect my identity.

Signature of participant _____ Date _____

WITNESS (other than the researcher) _____ Date _____

Any queries or complaints about your participation in this research project may be directed to the researcher or his supervisor at the University of Birmingham, Dr. Martin Toms.

The University address is: University of Birmingham, Edgbaston, Birmingham, B15 2TT or

e mail: [REDACTED] Tel No. [REDACTED].

6.3 Appendix C: Example of Timeline

Prior to filling out this sport timeline the interviewee was informed of the following, “As mentioned to you previously by letter, I am interested in the early developmental experiences of elite PGA professional golfers. Shortly I will be asking you about your life history in sport including golf and I will be asking you to talk about the developmental pathway you experienced. There are no right or wrong answers for this only your truthful version of events, your identity will be kept confidential.....”

Name:

Date:

Age:

Date of Birth:

Club level participation and above, only extra-curricular sports.
Level (LC = Club, C = County, N = National)

		Age Played and Level of participation																	
Sport:		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		Reason for drop
		Level																	
	Hours																		
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6.4 Appendix D: Interview Guide

Initially the interviewee was asked to complete the questionnaire with the interviewer highlighting all the sports that the interviewee played up until turning professional at golf. Alongside filling this questionnaire information was given by the interviewee regarding participation in golf, which was not asked but flowed without asking. The study was interested in the following, what representational level of sport reached they reached, the amount of training completed they experienced and the reasons for drop out, if applicable for the sports. This data was required because the study used the theoretical framework from Côté et al., (2007) ‘Developmental Model of Sport Participation’ to conduct the study. After the questionnaire the following questions were asked.

- Do you have any brothers or sisters? (probes – younger or older)
- What type of school did you attend? (probes – fee paying or not)
- Have your parents always been together through your golf development?

- What type of jobs did your parents do whilst you were playing amateur golf? (Probe – parental income?)
- Which area did you live in when you were still an amateur? (Probe - for size of town?)
- Tell me how you got into golf? (Probe – what was the first experience like/ where?)
- Tell me more about your early playing days? (Probes, what golf related activities did you do, how often, who with and where did you do them? How enjoyable were they?)
- When did you first join a golf club? (Probe - for municipal or private golf club, how far is the club from home, how did you get to and from the golf club, if they did not join a golf club early how did they play?)
- Tell me more about the golf club or place you played? (Probe - for practice facilities, support at the club, influences, friends, who paid for your participation?)
- How often did you play and tell me more about what you did at the golf club? (Probe - for reasons for participation?)
- How old were you when you started to take the game more seriously? (Probe - for reasons, training activities, effort and support?)
- Tell me more about how you practiced at that time? (Probe - for describe the type of practice you do, quantity, intensity/ effort, done alone or not? Examples?)
- Where did you practice? (Probe - for practice facilities?)
- Tell me about your golf coaching as an amateur? (Probe - for frequency, who paid and describe the coaching through the years?)
- How old were you when you decided that you wanted to be a golf professional? (Probe - for did they want to be a tour pro? What influenced them for this decision?)
- What kind of golf practice were you doing in order to reach your goal of being a professional? (probe - for types of practice, effort and examples)

- Tell me about all the support you have received through the years as an amateur (probe for financial, emotional and tangible support?)
- What influential people have been present in your life regarding golf? (Probe - for coaches, friends, parents?)
- Is there anything else that you would like to tell me in relation to your journey to become a professional golfer

6.5 Appendix E: Transcript Example

102 JA: erm yeah yes I could have gone professional to some degree in football, I am not saying definitely
 103 the top probably if I had kept going erm it would depend really if I wanted to focus my total mind
 104 then that's what I was gonna do. I am ambidextrous at squash I never use to do back hands I would
 105 swap hands even as an eight year old. If it was Tennis I would serve righted then with the left it was
 106 just easier and comfortable. It was just sheer comfort factor it didn't matter which foot I would kick
 107 it with. I play left footed but I can kick with my right no problem. My hand eye coordination is good.
 108 Whichever side it went on it was being kicked with that one or being thrown.

6.6 Appendix F: Sample from Filing System

13	JH	215	Parental support transport	My dad use to bring me up here
14	JA	144	Parental support - Equipment	Just before my 13 th birthday I got my proper full set
15	MF	117	Support - Financial golf clubs	my dad at the local driving range
16	SC	73	Parental support financial membership	so mum and dad said we'll pay the £13 pounds (both laugh) for your annual membership, yip you can't really knock it
17	MF	164	Parental support - Transport	mum and dad would have driven, I can remember once or twice trying to ride a bike with my golf clubs on my back but I don't think that was the best way to do it
18	JA	96	Parental support financial	they made sacrifices to help me best as they could
19	GL	311	Parental support - Financial	I suppose my parents all the way up until I turned pro, pretty much everything from there has been off my own back really

6.7 Appendix G: Professional Golfer Vignettes

6.7.1 Charlie

Charlie joined a golf club and started playing golf aged nine; he mentioned he displayed a natural talent for sport. Charlie highlighted his dad was a natural in sports and he

mentioned that this fact influenced his early sport playing days. He knew that he was going to have a career in sport but it was not until age thirteen that he knew it would be in golf. Charlie enjoys playing golf much more than practice and believes in this approach to becoming the best. Just after leaving school he went to College to please his parents but shortly afterwards dropped out and turned professional at golf aged twenty one. Charlie now competes in regional UK tours and nationally in PGA events and has played European Challenge Tour and experienced a lot of success.

6.7.2 Stan

Stan started playing golf aged ten and joined his first golf club aged twelve. Tour player role models that he watched on television played a significant role influencing his development. He idolised Seve Ballesteros and enjoyed playing a similar style of play namely an aggressive style with a fantastic short game. He expressed a strong dislike for practice and was another advocate for playing the game instead. Stan originally planned to work at a golf club but realised he could earn a better living playing full time professionally. He decided to turn professional at age nineteen and continued on to play on the Euro Pro Tour fulltime. Stan has played on several tours, also winning a few events, including winning at PGA regional and PGA national level.

6.7.3 Stephen

Stephen was introduced into golf aged seven and by the age of ten was playing at a golf club. During his early teens he stopped playing golf in favour of football but returned to golf later. Stephen represented golf for his county when he was younger and he mentioned that he possessed natural talent in sports and was especially good at badminton. However golf was to be his chosen sport and he dropped all the other sports in favour of it. After

turning professional at nineteen years old Stephen was a regular player on the PGA regional tour, MasterCard and European Challenge Tour's.

6.7.4 Jonathan

Jonathan started golf aged five and joined a golf club with his father at the same time. In addition to enjoying golf and showing promise in it he mentioned that he was a very talented runner. During his mid-teens Jonathan highlighted that the golf course was close by whilst the school was at least thirty minutes away and involved two buses to get there. The close proximity of the golf course increased the tendency to play. Jonathan reached a very low handicap as an amateur representing his county and reaching international level winning several amateur trophies on the way to playing for England. Jonathan got accepted into and played United States of America collegiate golf for a few years. He turned professional at golf aged twenty two and gained experience playing the MasterCard Tour and the European Tour. He has also qualified and played in the British Open.

6.7.5 Mark

Mark started golf aged ten and joined a golf club with his dad at the same time. He mentioned that he was a very good footballer reaching local club and county level. His father played a major role in his life making important decisions on his behalf all the way through until Mark was twenty two years old. Mark has attained University qualifications as well as the British PGA qualification. He reached an extremely low handicap standard as an amateur and turned professional aged twenty five. Mark currently plays fulltime internationally on the European Challenge and European Tour's and has had a lot of success.

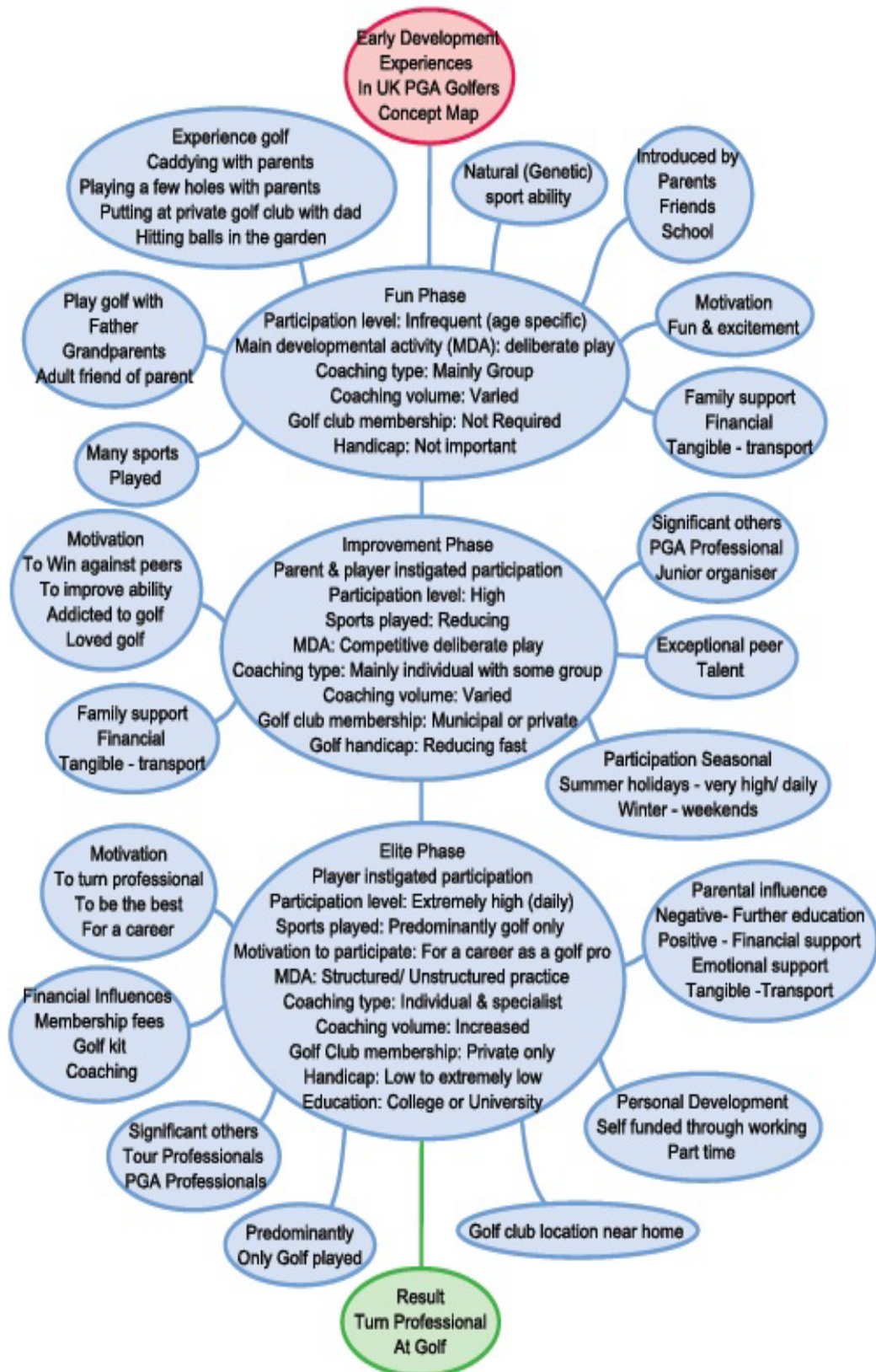
6.7.6 Gregor

Gregor started golf aged six but did not join his first golf club until he was aged thirteen. Gregor was also an extremely talented hockey player representing the men's team as a junior and playing for the county. He also mentioned that anything with a bat and ball he excelled in especially tennis. Gregor mentioned that he was torn between hockey and golf in terms of a career but due to lack of opportunities in hockey he decided to focus on golf and dropped hockey altogether. He turned professional at golf aged eighteen mentioning that competing on tour helped him enormously to improve. Gregor has played on the European Challenge Tour several times and now plays regularly on the regional tour and national PGA events.

6.7.7 John

John started golf later than the others in this study aged twelve. John was also extremely talented in many other sports and claimed a genetic advantage as an early developer in comparison to his peers. He decided that golf would be his career and dropped all the other sports. John was heavily influenced by his childhood hero, namely tour player Nick Faldo and tried to mechanically copy everything that he did in the golf swing. John represented his county at golf early on and continued to do so until he turned professional at age twenty. John currently plays fulltime and has played European Challenge and European Tour as well as playing regularly on some of the smaller US tours.

6.8 Appendix H: Concept Map UK PGA Tour Professionals



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