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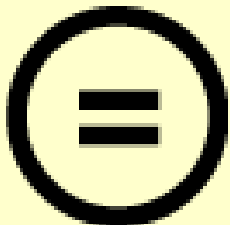
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# UNDERSTANDING COACH LEARNING

A thesis submitted for the degree of Doctorate of Philosophy awarded by  
Loughborough University

By

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January 2010

## **Acknowledgements**

I would like to open by thanking those coaches that kindly volunteered to participate in this study. Without you this project would not have been possible. I need also thank Sports Coach UK, and the various national governing bodies of sport, who agreed to support this project by providing initial access to the sample population. A debt of gratitude is owed to my supervisor, Dr. Chris Cushion, whose feedback has helped me to further clarify my own thoughts and present them in a coherent fashion. Likewise, special thanks goes out to Dr. Paul Potrac for reading, and providing valuable comments on, my work throughout this process. Prof. Kathy Armour must also be acknowledged for kindly reviewing elements of this thesis. I would also like to express my debt to all of those authors whose work I have cited throughout this thesis. It is through my reading of these texts that I have been able to make sense of, situate, and ultimately understand the findings of my own research endeavours. Finally, I must thank my mother as she supported my previous academic pursuits, which have contributed towards this project being realised. I am also grateful for her passing on a strong work ethic that has served me so well to-date and I hope will continue to do so in the future.

## Abstract

Coach learning is a complex process of which we have relatively little appreciation. Existing knowledge is largely fragmented and has tended to lack conceptual clarity and theoretical depth of understanding. This investigation sought to build on existing understanding by adding to a limited body of information about knowledge structures, learning situations, motives and deterrents to learning, and means of enhancing the provision of coach education.

Data were derived from 90 UK practitioners (82 males & 8 females), comprising a range of sports ( $n = 8$ ), who had accumulated on average 23 years of coaching experience (ranging from 3-50 years). Semi-structured interviews were conducted with 16 elite performance coaches. 74 practitioners of a diverse range of coaching levels completed open-ended questionnaires. All of the data were subjected to inductive content analysis. A number of theoretical 'hooks' were utilised within the analysis process to help make sense of the findings.

Analysis of the findings demonstrated that: (1) while it was possible to compartmentalise the coaches' knowledge structures (i.e., *Ologies*, *Pedagogy*, and *Sport Specific*), coaching practice likely requires integrated understanding; (2) the coaches under investigation learnt in formal, nonformal, and informal situations; (3) the participants' learning endeavours were largely driven by an internal desire to actualise their coaching potential; (4) dispositional, institutional, and situational barriers were shown to deter these practitioners from further coach learning participation; and (5) these practitioners were pragmatic learners who desired relevant and usable knowledge. Exploration of the coaches' educational experiences, and perceptions about optimal provision, revealed that they wanted more active learning opportunities (i.e., observations, group discussions, practical experiences, and mentoring schemes).

Collectively, the results of this investigation built upon previous understanding of coach learning. They highlighted the significance and under-researched link between the types of knowledge these coaches had acquired, what drove their continued learning engagement, and how these factors had influenced their actual and preferred learning approaches. These findings, therefore, not only contributed towards a greater understanding of how coaches learn, but what needs to be considered if the ongoing development of coaching practitioners is to be better



supported. Continued exploration of these factors is required if greater depth of understanding is to evolve.

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## **Chapter One: Thesis Introduction**

It has been widely accepted that 'quality' coaching plays an important role in maximising the athletes' sporting experience and helping them to enhance their athletic abilities (Campbell, 1993; Cassidy, Jones, & Potrac, 2004; Lyle, 2002). Indeed, it has increasingly been recognised that coaches are influential figures in the physical, psychological, and social development of young persons (Gilbert & Trudel, 2004a; Houseworth, Davis, & Dobbs, 1990; Smith & Smoll, 1990; Woodman, 1993). The pivotal role that coaches' play is not, however, limited to youth development. The desire for elite level sporting success has also lead to an increased level of importance being attached to performance coaching (Cushion, Armour, & Jones, 2003). So, as Campbell (1993) has clearly pointed out, it would appear vital that 'quality' coaching be provided across all levels of the sporting spectrum:

The influence of good coaching extends throughout sport. It can enhance the quality of the experience gained and help people achieve their own level of success. What is required are highly educated coaches...If we believe that every sportsperson should be given an opportunity to fulfil his or her potential, regardless of standard, then we must ensure that our coaches get the support they need and deserve (p. 73).

In light of this, there has been a substantial increase in the provision of and significance coupled to coach education, with many countries having developed programmes aimed at preparing individuals for the occupational practice of coaching (Lemyre, Trudel, & Durand-Bush, 2007; Lyle, 2007; Trudel & Gilbert, 2006; Wright, Trudel, & Culver, 2007). So it would seem that coach education has become a "very hot topic" in many Western nations (Cassidy, Potrac, & McKenzie, 2006, p. 145). In this respect, Lyle (2002) has argued that the importance of coach education "cannot be overestimated" as a key vehicle for raising coaching standards and making coaching a bona-fide profession (p. 275).

The increased importance attached to coach education provision is illustrated by the significant investment that both Canada and the United Kingdom have recently

made into redesigning their coach development programmes (Lyle, 2007). The value appended to coach education is further evidenced by the formation of the International Council for Coach Education. This non-profit organisation specifically aims to “accelerate positive change in the realm of coaching development” by facilitating international collaboration and exchange of information in order to help “coaches give athletes around the world a chance to pursue excellence” and “promote sport coaching as a profession” ([www.icce.ws](http://www.icce.ws)). There has also been a notable increase in published material relating to coach education. There have, for example, been a number of extensive reviews (Lyle, 2007; Trudel & Gilbert, 2006) and texts (Cassidy et al., 2004; Cushion et al., 2003; Lyle, 2002) that have discussed this topic. A special edition of *The Sport Psychologist* (2006) was also recently commissioned into research specifically focusing on coach education. So the provision of coach education has become a vitally important, and topical, issue. This development is even further evidenced by a growing number of higher education institutions that are offering coaching related study (Jones, 2005; Lyle, 2002).

Despite the level of importance attached to coach education, it has been argued that its provision is often under-theorised, and that the impact of course attendance on coach development is vastly under-researched (Cassidy et al., 2006; Lyle, 2007; Nelson & Cushion, 2006; Trudel & Gilbert, 2006). While the amount of published investigations remains limited, its findings have started to paint a sobering picture. Research into the perceptions and experiences of coaching practitioners, although not unequivocal, has served to demonstrate that while coach education can be useful, its provision has often been far from optimal (Abraham, Collins, & Martindale, 2006; Chesterfield, Potrac, & Jones, in press; Gilbert & Trudel, 1999; Irwin, Hanton, & Kerwin, 2004; Jones, Armour, & Potrac, 2003, 2004; Lemyre et al., 2007; Wright et al., 2007). This has been further compounded by evidence suggesting that reflections on practical experiences, and informal interactions with other coaches, remain the primary sources of coaching knowledge (Gould, Gianinni, Krane, & Hodge, 1990; Irwin et al., 2004; Jones et al., 2003, 2004; Lemyre et al., 2007; Schempp, Templeton, & Clarke, 1998; Wright et al., 2007). Such findings have added credence to those concerns raised by coaching scholars in relation to the perceived shortcomings of such programmes and their limited impact on the development of coach learners (e.g., Abraham & Collins, 1998; Cassidy et al., 2004; Cushion et al., 2003).



This bleak situation has lead numerous coaching researchers to offer potential remedies, in acknowledgement that coach educators are often unaware of frameworks that could underpin and guide their practices (Lyle, 2007). While proposals such as competency-based programmes (Demers, Woodburn, & Savard, 2006), issue-based learning (Trudel & Gilbert, 2006), problem-based learning (Jones & Turner, 2006), and the establishing of mentoring schemes (Cushion et al., 2003) and communities of practice (Culver & Trudel, 2006) could all prove to be valuable alternatives, as Cassidy et al. (2006) have pointed out, “there remains a paucity of research addressing the development of coach education curricula, coach learning and how it is to be facilitated and assessed” (p. 146).

One explanation for coach education’s limited impact lies in its having been designed using a “top-down approach”, with coaches having had little input into this process (Côté, 2006, p. 220). It seems necessary, therefore, that practitioners be approached about how coach education might be designed to better serve their developmental needs (McCullick, Belcher, & Schempp, 2005). Early research conducted into this area has served to demonstrate that coaches are able to provide a valuable pool of information that could help inform the decisions and practices of coach educators (Bloom, Salmela, & Schinke, 1995; Gould et al., 1990; Salmela, 1995; Wiersma & Sherman, 2005). While these studies have provided some initial insights that have paved the way for more detailed theoretical analysis, these exploratory investigations have been largely descriptive in nature. Moreover, there is a need to test the transatlantic validity of their findings by comparing the data collated in Canada and the United States with that of UK coaching practitioners. A key objective of this research, therefore, was to empirically examine the educational experiences, perceptions, and propositions of a UK coaching sample. I aimed to achieve this by utilising a mixed method design previously employed within the domain of physical education (Armour & Yelling, 2002, 2004a, 2004b). In so doing, the present study is the first to report on how a group of UK coaching practitioners perceived that future coach education provision could be better designed to meet their learning requirements and support their ongoing development. Furthermore, by drawing on relevant theoretical concepts to help explain the data, I aimed to make a significant academic contribution by addressing those theoretical limitations already identified.



Another explanation for some of coach education's shortcomings has been a general "lack of concern about how coaches learn" (Nelson & Cushion, 2006, p. 174). Understanding about this process, however, remains limited. There has although been a growing realisation that the development of coaches "extends far beyond any formal training program" (Côté, 2006, p. 221). Indeed, *coach learning* has recently been presented as an overarching term that encapsulates research into, and understanding about, the broader learning of coaches (Nelson, Cushion, & Potrac, 2006). The importance attached to recognising that coaches learn through numerous situations, beyond that of educational institutions, is also further evidenced by the introduction of frameworks to help conceptually locate and make sense of the research findings in this domain (Nelson et al., 2006; Trudel & Gilbert, 2006; Werthner & Trudel, 2006). A focus of this investigation, therefore, was to establish an understanding of the situations in which UK coaching practitioners learn.

While providing valuable insights into the diverse means through which coaches acquire understanding, investigations into coach learning sources have varied significantly in the number of sources identified. The majority of this research, like inquiries into coach education, has also been conducted in Canada and the United States (Fleurance & Cotteaux, 1999; Gould et al., 1990; Lemyre et al., 2007; Salmela, 1995; Schempp et al., 1998; Schempp, Webster, McCullick, Busch, & Manson, 2007; Wright et al., 2007). Understanding about how UK coaches learn, on the other hand, is limited to only a few articles that have focused on elite level coaches only (Abraham et al., 2006; Irwin et al., 2004; Jones et al., 2003). An aim of this research, therefore, was to investigate how a pool of UK practitioners, coaching at various levels, came to acquire their knowledge. This was achieved by my utilising a methodology comparable with those of studies previously completed within this domain. In so doing, the study presents not only the first investigation to consider UK coaches operating outside of the elite environment, but to examine the learning activities of coaches operating at a diverse range of levels. It was hoped that this would allow similarities and differences to be drawn.

While the identification of knowledge sources is undoubtedly an important process, and has been shown to identify valuable information (Abraham et al., 2006; Fleurance & Cotteaux, 1999; Gould et al., 1990; Irwin et al., 2004; Jones et al., 2003, 2004; Lemyre et al., 2007; Salmela, 1995; Schempp et al., 1998, 2007; Wright et al., 2007), a concerted focus on this area has arguably come at the expense of researching



equally important issues that are fundamental to our further understanding of coach learning. There is, for example, currently little understanding about the types of information that coaching knowledge comprises (Abraham et al., 2006). There has yet to be any exploration of what motivates experienced coaches to continuously engage in the ongoing process of coach learning, and what factors, if any, have deterred them from further participation. The investigation of learning motives and deterrents would appear vitally important when recognising that these areas of investigation form a basic component of the adult learning literature (Jarvis, 2004; Merriam & Caffarella, 1999). Indeed, the findings of research completed in these areas have served to inform theoretical development within this domain (e.g., Knowles, Holton, & Swanson, 2005a).

An empirical exploration of coach learning motives and deterrents could conceivably assist in our further understanding the inherent complexities of coach learning. The research conducted within sport has, to date, focused instead on identifying factors that could encourage or have actually acted as barriers to engaging in *further* education (Sports Coach UK, 2004; Vargas-Tonsing, 2007). Findings elicited from these investigations have usefully contributed towards our understanding of non-participation and have started to help identify means of reducing its occurrence. There has, however, been little consideration of the reasons that practitioners attribute to their having participated in education and learning activities more broadly. Moreover, the existing body of research has been largely descriptive in nature. This study, therefore, represents the first attempt at investigating factors that have driven and deterred coaches from engaging in the process of learning. By drawing on relevant theory this investigation endeavoured to present not only an empirical account of phenomena that have yet to be explored within the coach learning literature, but to do so in a way that utilised relevant theoretical concepts to help explain and develop our understanding of them.

### *1.1 Research Problem*

Despite a growing interest in the topic of coach learning, this area of investigation remains vastly under-researched, especially in relation to practitioners coaching within the UK. While a significant proportion of the coach learning literature has focused on coach education (e.g., Demers et al., 2006; Knowles, Borrie, & Telfer, 2005; Wiersma & Sherman, 2005), the wider situations in which coaches learn are

also increasingly being understood (e.g., Nelson et al., 2006; Trudel & Gilbert, 2006; Werthner & Trudel, 2006). Such understandings have, however, been developed from research primarily conducted with coaches practicing in Canada and the United States. A number of fundamental components, such as those factors driving and inhibiting coach learning, remain largely unexplored. As such, research of an exploratory nature is needed to ‘map the terrain’ so that future investigations can ‘unearth’ greater levels of understanding through increasingly sophisticated analysis of coach learning’s inherent complexities.

### 1.2 *Research Questions*

1. What knowledge underpins the decisions and practices of the UK coaching sample under investigation, and through what means was this developed?
2. What factors motivated and deterred these UK practitioners from engaging in the process of coach learning?
3. What aspects of their coach education experiences did these UK coaching practitioners perceive as being effective and ineffective?
4. How did these UK coaches perceive that the provision of coach education could be best enhanced?

### 1.3 *Thesis Organisation*

This chapter is followed by the *Review of Literature*, which critically considers research pertaining to the structure of coaching knowledge, sources of knowledge acquisition, the evaluation of coach education, and learning motives and deterrents. In so doing, it demonstrates the limitations and gaps in existing understanding, while identifying how this knowledge could be built on to further our understanding of coach education and coach learning more broadly. Next is the *Methodology* chapter, which provides a comprehensive and transparent overview of the methodology employed and the reasons informing the various research decisions made. It considers in detail the origins of the research, the paradigm debate, methodological choices, data collection and analysis, research quality, and the generalisability of findings. This is followed by three chapters that present the key data themes, namely: (1) *Coaches’ Knowledge Structure & Learning Sources*; (2) *Coach Learning Motives & Deterrents*; and (3) *The Effective (Ineffective) Provision of Coach Education*. Each of these chapters arguably represents a topic of inquiry in its own right, so the findings



are at first presented and discussed separately. Various theoretical and conceptual frameworks are drawn on throughout these chapters to make sense of the findings, locate them within the broader learning literature, and in so doing contribute towards contemporary understandings of coach learning. Finally, the *Thesis Conclusion* presents a review of the findings by considering how a drive to learn practical knowledge appears to have significantly shaped coaches' actual and desired learning activities. Limitations of the study and its findings are also reflected on to identify the need for greater depth of analysis if a more complex understanding of coach learning is likely to evolve. The final chapter ends by suggesting areas that could be further explored.

## Chapter 2: Review of Literature

### *Introduction*

According to Schempp (1993), “the degree of success that professionals experience in meeting societal demands is largely dependent upon the knowledge they generate and accumulate for the tasks and obligations that they undertake” (p. 3). As such, it could be suggested that if coaching is to develop as a profession it is necessary to explore and analyse its knowledge bases (Jones et al., 2003). In this respect, Schempp (1993) has suggested that, “an understanding of knowledge sources and the process of pedagogical reasoning and action can come from a firm foundation for education” (p. 3). So it seems important that scholars attempt to investigate the types of knowledge that coaches draw on, how they utilise this knowledge to inform their practices, and from which sources coaches acquire their understandings.

The following review of literature aims to fulfil a number of purposes. By considering research on how coaches learn, this chapter takes stock of existing knowledge, identifies the strengths and limitations of current understanding, and where appropriate highlights gaps requiring exploration. While the structure of this review might appear logical and orderly, research in this domain is arguably fragmented in nature and lacking direction. Indeed, it has been argued that academic inquiry has tended to develop along serendipitous lines, influenced more by personal and methodological interests of scholars, rather than attempts to develop a conceptually oriented research agenda (Nelson et al., 2006). While reviews of both coach education (Lyle, 2007) and coaching literature more generally (Trudel & Gilbert, 2006) have recently been published, an extensive review focusing on how coaches learn would appear useful. This chapter therefore builds on an earlier review completed by my colleagues and I (Nelson et al., 2006; see Appendix 1 p. 182).

The review opens by identifying the various types of knowledge that underpin coaches’ decision-making processes and coaching practices. This logically links to examining how coaches acquire this knowledge base, by reviewing studies investigating coaches’ developmental pathways and learning sources. In acknowledgement that this domain has tended to lack conceptual clarity, *coach learning* is utilised as an overarching terminology that not only encapsulates the study of learning situations, but all investigations into the learning of coaches. Literature



discussing knowledge sources are logically discussed under Coombs and Ahmed's (1974) formal, nonformal, and informal conceptual framework. The provision of formal coach education is explored on a number of levels due to its having received more attention than other aspects of coach learning. Studies into formal coach education are grouped into those that have externally evaluated, gained coaches' experiences and perceptions of, and gathered practitioners' thoughts about how provision might be enhanced. The chapter ends by reviewing motivations and barriers to the learning of coaches and adults more broadly. Having presented an overview of the reviews structure, the chapter will now open with a discussion of how coaches' acquire underpinning knowledge.

### *2.1 Coach Learning: What Comprises Coaching Knowledge & How is it Acquired?*

Contemporary coaching literature has served to highlight that the coaching process is a web of complex, context-dependent, and interdependent sub-processes (Lyle, 2002; Cushion, Armour, & Jones, 2006). Consistent with this analysis, coaching practice has been described as an inherently non-routine, problematic, and multifaceted endeavour that requires practitioners to make decisions in-action (Abraham & Collins, 1998; Cushion et al., 2003; Jones, 2006; Lyle, 2002). In recognition of these factors, Abraham et al. (2006) recently developed a schematic illustrating those elements contributing towards coaches' decision-making processes and behavioural outputs. In an attempt to empirically support their model 'of' the coaching process, Abraham et al. (2006) interviewed 16 expert coaches from a range of individual and team sports. The coaches were asked to describe their roles, processes, and understandings, which offered information that implicitly supported their schematic. Each of the coaches were also presented with a copy of the model and asked to comment on its ability to depict the process of coaching. The coaches provided explicit support for its illustrative representation. While Abraham et al.'s (2006) schematic is not a model of coach learning *per se*, elements are arguably worthy of consideration within this area of inquiry. The schematic has suggested, for example, that the cognitive and behavioural aspects of coaching practice are fundamentally underpinned by a typology of coaching knowledge: (1) *Ologies* (e.g., biomechanics, exercise physiology, motor control, nutrition, organisational psychology, sociology, and sport psychology); (2) *Pedagogy* (e.g., coach behaviour, critical thinking, motor and cognitive learning); and (3) *Sport Specific* (e.g., tactics and techniques). Future coach



learning investigations need to further substantiate whether this typology is an accurate analytical tool that could usefully develop our understanding of coach learning. Analogous to research exploring knowledge types are investigations that have studied the learning situations that coaches engage to acquire understanding.

The investigation of learning sources has been studied for over a decade, although a large proportion of this research has been published during more recent years. It could be argued that the investigation of learning situations has therefore become a distinct and legitimate area of academic coaching study. For an overview of investigations researching sources of coach learning, including the number and level of participants, methods of data collection and analysis, and identified learning categories, refer to Table 1.0 (p. 11). Research into coach learning sources has tended to employ interviews to collect data that have been inductively analysed. Gould et al.'s (1990) seminal investigation, however, served to demonstrate that questionnaires are also a valuable method of data collection. This was recently confirmed by a study completed by Schempp et al. (2007) who utilised open-ended questionnaires to analyse the self-monitoring strategies that 31 expert golf coaches employed to improve their coaching practices. So interviews and open-ended questionnaires have both been effectively utilised to gaining further understanding about how coaches learn.

Elite coaches have in most instances been the focus of investigation (i.e., Abraham et al., 2006; Fleurance & Cotteaux, 1999; Gould et al., 1990; Irwin et al., 2004; Jones et al., 2003, 2004; Salmela, 1995; Schempp et al., 1998, 2007), however two studies have recently concentrated instead on voluntary youth sport coaches (i.e., Lemyre et al., 2007; Wright et al., 2007). An understanding of the learning situations that these two groups of coaches engage has therefore begun to evolve. Future studies might usefully attempt to build on earlier investigations by further exploring the similarities and difference between how elite and voluntary youth sport coaches learn. Additional insight into the learning activities of UK practitioners is also required, as the vast majority of coach learning investigations have been conducted in Canada and the United States (Fleurance & Cotteaux, 1999; Gould et al., 1990; Lemyre et al., 2007; Salmela, 1995; Schempp et al., 1998, 2007; Wright et al., 2007). Understanding about how UK coaches learn remains limited to a few articles that have tended to focus on elite level coaches (Abraham et al., 2006; Irwin et al., 2004; Jones et al.,



2003). Further research into how UK coaching practitioners learn would appear necessary not only at the elite level, but across a diverse range of coaching positions.

Some studies have interviewed coaches from a single sport (i.e., Irwin et al., 2004; Jones et al., 2003; Schempp et al., 1998, 2007; Wright et al., 2007), others from a range of individual and team sports (i.e., Abraham et al., 2006; Gould et al., 1990; Jones et al., 2004; Lemyre et al., 2007; Salmela, 1995). Whereas most researchers have aggregated the data of multiple coaches, Jones and colleague (2003, 2004) presented, instead, case studies through life story narratives. A number of the published investigations have employed inductive content analysis to make sense of the collected data (Fleurance & Cotteaux, 1999; Irwin et al., 2004; Salmela, 1995; Schempp et al., 2007; Wright et al., 2007). Studies employing this method of analysis have varied in the number of identified learning sources, reporting between 3 and 11 learning categories (see Table 1.0 p. 12). These variations might be explained by differences in the methodologies employed, the participants learning experiences, or perhaps the depth of analysis applied to the data. Nevertheless, future studies should strive to detail each of the learning sources identified by their participants. This was an aim of the present study.

While the inductive analysis of interview data has been widely employed, Schempp et al. (1998) utilised a Q-sort technique to establish how expert golf coaches' ranked pre-defined learning categories in order of importance. The only other investigators to have studied the issue of importance are Gould et al. (1990) and Irwin et al. (2004). Having inductively created themes from the interviewing of 16 elite gymnastics coaches, Irwin et al. (2004) then asked their participants to rank the importance they attached to each learning category. Gould et al. (1990), on the other hand, asked their participants to rank learning sources in order of their perceived impact on coaching development. Despite differences in the terminologies and number of categories employed, all three studies found that their participants considered practical coaching experiences and learning from other coaches to be of primary importance. Moreover, all three investigations demonstrated that the coaches perceived formal coach education to have been of considerably less significance to their overall development. However, the merits of comparing the relative usefulness of learning in informal situations when compared to that of formal has been questioned (Mallett, Trudel, Lyle, & Rynne, 2009).

Table 1.0 - An overview of investigations researching sources of coach learning.

Study	Participants	Method(s)	Data Analysis	Learning Categories
Abraham et al. (2006)	16 expert coaches from 13 individual and team sports	In-depth interviews	Inductive/Deductive analysis	(1) Courses, (2) Experience, (3) Other Coaches, and (4) Serendipitous (i.e., reading books, encounters with sport scientists, and experiences outside of sport).
Fleurance & Cotteaux (1999)	10 expert coaches	In-depth interviews	Inductive analysis	(1) Formal education, (2) Interaction with high-level athletes, (3) Ongoing education, (4) Mentors, (5) personal commitment to coaching, (6) playing experience, and (7) professional experience.
Gould et al. (1990)*	130 elite coaches from 30+ individual and team sports	Survey comprising open and closed questions	Frequency and statistical analysis	(1) Book or coaching journals, (2) Clinic, lectures, seminars, (3) Coaching experience, (4) Films, (5) Talking to other coaches and attending competitions, and (6) Thought their own style out.
Irwin et al. (2004)	16 elite gymnastics coaches	In-depth interviews	Inductive analysis	(1) Coaching courses, (2) Coaching manuals, (3) Foreign coach and travel, (4) Mentor coaches, (5) Past experiences as a performer, (6) Squad sessions, (7) Trial & error, and (8) Video and observations.
Jones et al. (2003)	1 elite soccer coach	Field notes & 5 interviews	Life story narrative	(1) Coach certification, (2) Learning from others, and (3) Learning from the self (i.e., experiential learning and past playing experiences).
Jones et al. (2004) **	8 elite coaches from 5 individual and team sports	In-depth interviews	Life story narratives	(1) Athletes, (2) Athletic experience, (3), Coach certification, (4) Coaching experience, (5) Conferences, (6) Mentors, (7) Other coaches, (8) Previous jobs, (9) Teacher training, (10) Seminars/workshops, and (11) Reading.
Lemyre et al. (2007)	36 voluntary coaches from 3 team sports	In-depth interviews	Deductive analysis	(1) Interactions, (2) Internet, (3) Resource materials, and (4) Training Courses.
Salmela (1995)	21 expert coaches from 4 team sports	In-depth interviews	Inductive analysis	(1) Athletic experience, (2) Coaching experience, and (3) Mentors.
Schempp et al. (1998) ***	11 expert golf instructors	Q-sort ranking and interviews	Quantitative and qualitative analysis	(1) Books, (2) Certification programs, (3) Films & videos, (4) Formal education, (5) Journals and magazines, (6) Other teachers, (7) Playing experience, (8) Popular media, (9) Students, (10) Teaching experience, and (11) Workshops.
Schempp et al. (2007)	31 expert golf instructors	Open-ended questionnaires	Inductive analysis	(1) Adapt teaching practice, (2) Develop business strategies, (3) Reading, (4) Seeking help from others, and (5) Using technology.
Wright et al. (2007)	35 voluntary youth ice hockey coaches	In-depth interviews	Inductive analysis	(1) Books/videotapes, (2) Coaching clinics/seminars, (3) Face-to-face interactions with other coaches, (4) Formal mentoring, (5) Internet, (6) Large-scale coach education programs, and (7) Personal experiences related to sport, family, and work.

\* Learning sources in this study comprised of those reported by participants and categories that coaches were asked to rank.

\*\* The categories identified were elicited and compiled from my reading each of the individual narratives presented.

\*\*\* Coaches in this study were asked to rank predefined coach learning categories.



Whereas the vast majority of studies have focused on the identification of knowledge sources, two studies have recently attempted to empirically investigate and map out the developmental pathway of coaches (Gilbert, Côté, & Mallette, 2006; Erickson, Côté, & Fraser-Thomas, 2007). Utilising an approach first proposed by Côté, Ericsson, and Law (2005) for examining the developmental pathways of elite athletes, Gilbert et al. (2006) modified this procedure for use with coaching practitioners. To establish the developmental pathway of coaches, both Gilbert et al. (2006) and Erickson et al. (2007) employed retrospective interviews to obtain qualitative accounts of their participants' experiences as athletes and coaches. While these investigations were not focused on learning sources *per se*, analysis of the data derived from 15 successful team sport coaches (Gilbert et al., 2006) and 19 high-performance individual and team sport coaches (Erickson et al., 2007) indicated some intriguing early results. These findings may significantly contribute to our understanding of how coaches learn, and will therefore be further explored within this review of literature (see *Informal Learning Situations* subheading p. 14).

This section has broadly reviewed investigations into how coaches learn, primarily at the methodological level. It was shown that the study of learning sources has become a legitimate line of academic coaching inquiry. These investigations have tended to inductively analyse data collected through interviews or questionnaires. While studies conducted within this domain have helped develop an appreciation about how coaches develop understanding, it was found that most investigations have been conducted in Canada and the United States. A tendency to focus on the learning of elite level coaches was also identified. Additional research into how UK coaches, across a range of levels, learn was therefore highlighted as being required. The investigation of knowledge types was also identified as a developing area that needs to be further studied. Having explored the learning sources literature at a largely methodological level, I will now discuss the findings of these studies, and investigations into the education of coaches, in greater depth. The following sections organise these findings around the informal (e.g., athletic and coaching experience, peer interaction, and workshops), nonformal (e.g., coaching conferences and workshops) and formal (e.g., coaching certification and university coaching degrees) typology of coach learning situation (Nelson et al., 2006). It is to informal learning situations that I will first turn.



### 2.1.1 *Informal Learning Situations*

Learning in informal situations has been identified as, “the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment” (Coombs & Ahmed, 1974, p. 8). Learning takes place in a wide variety of contexts, the majority of which occur in an informal setting beyond dedicated formal learning institutions (Brookfield, 1986; Merriam & Caffarella, 1999). Coaching research has indicated that practitioners learn through various avenues, including previous experiences as an athlete, informal mentoring, practical coaching experiences, plus interactions with peer coaches and athletes (Abraham et al., 2006; Bloom, Durand-Bush, Schinke, & Salmela, 1998; Fleurance & Cotteaux, 1999; Irwin et al., 2004; Jones et al., 2003, 2004; Schempp et al., 1998; Wright et al., 2007).

At this point, I would like to introduce the term self-directed learning as it is often used interchangeably with informal learning (Merriam & Caffarella, 1999). In addition to the avenues already identified, the literature highlights that coaches engage in other forms of informal self-directed learning such as exploring the internet (Lemyre et al., 2007; Schempp et al., 2007; Wright et al., 2007), as well as reading coaching manuals (Irwin et al., 2004; Schempp et al., 2007), books (Abraham et al., 2006; Lemyre et al., 2007; Schempp et al., 1998, 2007; Wright et al., 2007), and journal articles and magazines (Schempp et al., 1998, 2007). Coaches have also been shown to watch educational sports science videos (Wright et al., 2007), footage of coaching sessions (Irwin et al., 2004; Schempp et al., 2007), and recordings of the performance of their and other coaches’ athletes (Irwin et al., 2004; Schempp et al., 1998, 2007).

Arguably the best theoretically framed explanation for how coaches informally learn through self-directed means has come from Gilbert and Trudel’s (2001) experiential learning model. The authors research demonstrated how six model youth sport coaches learned by engaging in three forms of reflective practice: (1) Reflection-in-action (i.e., during the action present); (2) Reflection-on-action (i.e., within the action-present but not in the midst of activity); and (3) Retrospective reflection-on-action (i.e., outside of the action present). In so doing, Gilbert and Trudel (2001, 2004b, 2005) have presented a compelling argument that Schön’s (1983, 1987) theory of reflective practice provides an effective framework for analysing and explaining how these coaches framed their knowledge and learned from

practical coaching experiences.

Gilbert and Trudel's (2001) model of experiential learning highlighted six distinct components within this process: (1) Coaching issues; (2) Role frames; (3) Issue setting; (4) Strategy generation; (5) Experimentation; and (6) Evaluation. The last three of these components comprised a sub-loop that model coaches often cycled through on numerous occasions before solving their specific coaching problem. According to the authors, coaching issues provided the impetus for reflection to occur. Reflection, however, was bound by the coaches' personal coaching philosophy, which the authors referred to as a role frame. Role frames acted as filters that influenced which scenarios were and were not considered worthy of reflection. The third component, issue setting, was recognised as the process of identifying why a situation was conceived as being a coaching issue. Upon identifying a troublesome situation (i.e., labeled as a coaching issue) a reflective conversation was triggered. This led the coaches to draw on a pool of resources (i.e., coaching repertoire, creative thoughts, coaching materials, advice seeking, joint construction, and reflective transformation) in an attempt to generate a strategy that could address their coaching issues. The strategy was subsequently implemented and its effectiveness evaluated. If resolved, the strategy was perceived to be effective and the coach disengaged from the reflective conversation. If the issue remained unresolved, the strategy was labeled ineffective and the coach returned to the strategy generation phase.

A central component of Gilbert and Trudel's (2001) description of the experiential process was that much coach learning occurred through interactions (Lemyre et al., 2007). The importance of learning through interaction has been consistently reported in the coaching literature. Schempp et al. (1998), for example, concluded from their data that:

A common theme linking these knowledge sources was the people factor. The expert golf instructors in this study were clearly people oriented. They learned much through a dynamic interaction process that involved many people: students, other teachers, and people from other professions (p. 301).

Coaches of a diverse range of levels and sports have reiterated the importance attached to learning from interactions with athletes (Schempp et al., 1998, 2007),



other coaching practitioners (Abraham et al., 2006; Irwin et al., 2004; Jones et al., 2003; Wright et al., 2007), and informal mentors (Bloom et al., 1998; Irwin et al., 2004; Jones et al., 2004; Salmela, 1995). In relation to the last of these, Bloom et al.'s (1998) study of 21 elite coaches served to demonstrate that the practitioners under investigation mentored many athletes and developing coaches. Of equal significance, however, was the finding that these coaches also served what has been described as an 'apprenticeship of observation' (Sage, 1989) as athletes and coaches themselves. So it would appear that learning not only occurs while engaging in the process of coaching, but in fact some considerable time before.

While much development takes place throughout a coaches' practicing career, it would appear that job related learning often starts many years before any conscious decision to enter the 'profession'. Indeed, analysis of the literature reveals that both elite performance coaches (Abraham et al., 2006; Irwin et al., 2004; Jones et al., 2003, 2004; Salmela, 1995; Schempp 1998) and voluntary youth sport coaches (Lemyre et al., 2007; Wright et al., 2007) have acquired much understanding regarding coaching as athletes. Practitioners have reported that these experiences provided them with a basic understanding of their sports rules, procedures, and drills (Bloom et al., 1998; Lemyre et al., 2007); allowed them to see and learn from different coaches (Lemyre et al., 2007; Wright et al., 2007); helped them to gain an understanding of how performance feels for their athletes (Irwin et al., 2004; Schempp et al., 1998); and facilitated their ability to better relate to their athletes by empathetically understanding things from their perspective (Irwin et al., 2004; Jones et al., 2003; Schempp et al., 1998). Athletic experience is therefore unquestionably a source through which coaches start to learn their trade. The importance coaches attach to these past experiences would, however, appear open to further investigation. Whereas elite gymnastics coaches identified athletic experience as the third most important learning source (i.e., Irwin et al., 2004), elite golf coaches ranked it as being relatively unimportant when compared to other knowledge avenues (i.e., Schempp et al., 1998). One of the elite gymnastics coaches in Irwin et al.'s (2004) study actually reported that sporting experiences could in fact be detrimental, as previous sporting success can result in a lack of understanding and compassion towards others. So it would appear that additional research into both the positives and negatives associated with having gained previous athletic experience is required.

Through his study of elite Canadian team sports coaches Salmela (1995) discovered that, “all expert coaches were intensely involved in many sports as children and adolescents” (p. 5). More recent investigations have begun to unpack this finding and elicit a greater understanding of these pre-coaching experiences. Gilbert et al. (2006), for example, found that successful team sports coaches accumulated thousands of hours as an athlete across a number of sports before coaching. Building on this preliminary investigation, Erickson et al. (2007) reported five developmental coaching milestones from their analysing the data of 19 Canadian university head coaches comprising a range of sports: (1) Diversified early sport participation (age 6-12); (2) Competitive sport participation (age 13-18); (3) Highly competitive sport participation/introduction to coaching (age 19-23); (4) Part-time early coaching (age 24-28); and (5) High performance head coaching (age 29+). While the majority of the study’s participants had elite-level experience as an athlete in the sport they now coached, Erickson et al. (2007) reported that their findings were consistent with those of Salmela (1995) in that elite level athletic experience was not necessarily a pre-requisite. Erickson et al. (2007) also discovered that, despite forming part of the coaches’ developmental process, the amount of time engaged in formal training was minimal when compared to the actual practice of coaching. As has already been discussed, however, much learning can occur ‘on-the-job’ through the process of reflective practice. Informal mentoring was also identified by Erickson et al.’s (2007) participants as having been an important developmental process.

This section has reviewed literature pertaining to the informal learning of coaches. The findings have demonstrated that coach learning frequently occurs outside of educational settings. Informal learning was shown to occur through interactions with athletes and other practitioners, reflection on practical coaching experiences, and the self-directed study of written text and audio-visual materials. Gilbert and Trudel’s (2001) model of experiential learning was found to present an explanation for how coaches learn by reflecting on their practical experiences, and how other sources are drawn on to build strategies that attempt to overcome coaching issues. While learning occurs when practicing as a coach, evidence was also presented demonstrating that learning to become a coach often starts as an athlete. The usefulness of knowledge developed during this period was however brought to question. Indeed, this was identified as an area requiring further investigation. Having explored how coaches learn informally, the review will now progress to literature



discussing the education of coaches. It is to nonformal learning situations that attention will be first turned.

### 2.1.2 *Nonformal Learning Situations*

Learning that has occurred in nonformal situations has been conceptualised as, “any organized, systematic, educational activity carried on outside the framework of the formal system to provide select types of learning to particular subgroups in the population” (Coombs & Ahmed, 1974, p. 8). Examples of nonformal learning include coaching conferences, seminars, workshops and clinics (Nelson et al., 2006).

Although formal and nonformal learning share many similar characteristics, nonformal learning differs as it presents a particular subgroup of a population (e.g., high performances coaches) with alternative sources to those of the formal structured learning pathway (i.e., short courses typically delivering on a specific area of interest).

Research indicates that coaches have engaged in nonformal learning activities (Schempp et al., 1998), although there has been a tendency in the literature to consolidate all forms of external provision under headings such as ‘coaching courses’ (Irwin et al., 2004). As was previously discussed (see the *Coach Learning: What Comprises Coaching Knowledge & How is it Acquired?* subheading p. 9), the number of reported learning categories varies significantly between studies. This might have resulted from the absence of a conceptual framework that could have informed the analysis process. It could be argued, then, that a more useful approach would have been to detail the various formal, nonformal, and informal endeavours that coaches have engaged, rather than report broad categories comprising of distinguishable learning sources. There is also a need to assess the impact of these nonformal learning activities on the development of coaches.

Associations and clubs employing numerous coaches are other nonformal learning sites. While contextualised learning has been shown to occur informally through reflection (see the *Informal Learning Situations* subheading p. 14), Rynne, Mallette and Tinning (2006) have suggested that organisations such as the Australian Institute of Sport could also sort to promote workplace learning by educating its employees. One such example is arguably that presented by Culver and Trudel (2006) who drew on the work of Wenger (1998) to cultivate three coaching communities of practice (CCoPs) within a large Canadian alpine ski club. Analysis of the data

revealed that those practitioners who participated in facilitated CCoPs appreciated these roundtable discussion opportunities, and found them to be both valuable and enjoyable. These experiences allowed the participant coaches to consider others opinions, listen to the advice of others, and to experiment with new ideas in practice. The third CCoP was however less successful. Despite its having comprised coaches that had already benefited from participating in the two previous CCoPs, this group lacked leadership and direction because the facilitator did not attend this phase. The third CCoPs results therefore suggested that the facilitator played an important role in the group learning process. Having explored the limited amount of research discussing nonformal learning situations, I will now consider learning that occurs in formal situations.

### *2.1.3 Formal Learning Situations*

Learning that has occurred in a formal situation is defined by Coombs and Ahmed (1974) as something that has taken place in an “institutionalized, chronologically graded and hierarchically structured educational system” (p. 8). Formal programmes have characteristically required candidates to demonstrate prerequisites outlined in admissions guidelines, before embarking on a course that enforces compulsory attendance, standardised curricula, and culminate in certification (La Belle, 1982).

Activities conforming to this definition include large-scale coach certification programmes developed by the national governing bodies of sport and higher education courses relating to coaching and the sport sciences (Nelson et al., 2006). As a sub component of coach learning, formal coach education has understandably attracted considerable attention with numerous scholars having researched (Cassidy et al., 2006; Chesterfield et al., in press; Culver & Trudel, 2006; Demers et al., 2006; Gilbert & Trudel, 1999; Hammond & Perry, 2005; Jones & Turner, 2006; Knowles, Gilbourne, Borrie, & Nevill, 2001; Knowles et al., 2005; Knowles, Tyler, Gilbourne, & Eubank, 2006; Malete & Feltz, 2000; McCullick, Schempp, & Clark, 2002; McCullick et al., 2005; Nelson & Cushion, 2006; Vargas-Tonsing, 2007; Wiersma & Sherman, 2005) and specifically writing about this topic (Abraham & Collins, 1998; Cassidy et al., 2004; Cushion et al., 2003; Lyle, 2002, 2007; Trudel & Gilbert, 2006). Within the following sections I will endeavour to identify and explore research that has attempted to externally evaluate such courses, gain practitioners’ perceptions and experiences about the usefulness of these programmes, and elicit coaches’ suggestions



about how future provision could be enhanced. This section will open with an exploration of research that has attempted to externally evaluate coach education programmes.

## *2.2 Evaluating Coach Education: A Guide to Enhancing Provision*

### *2.2.1 External Evaluation*

To date there have been relatively few studies that have attempted to directly investigate and evaluate coach education programmes. Those that have, however, tend to have utilised mixed methodology designs. Gilbert and Trudel (1999), for example, were the first scholars to outline a comprehensive strategy that could evaluate large-scale coach education programmes, and still remain the only researchers to have measured whether course attendance directly impacted on both the knowledge and practice of an attendee. While the author's primary focus was on establishing the efficacy of their evaluation strategy, the mixed methodology employed (i.e., participant observations, semi-structured interviews, stimulated recall interviews, and systematic observations) demonstrated that the Canadian National Coaching Certification Program (NCCP) level two theory course had a negligible impact on a youth ice hockey coach's knowledge, decision-making, and instructional behaviours. These findings were, however, unsurprising as the coach revealed in his post-course interview that he already possessed a basic understanding of the program's content, through previous course attendance and his own self-directed learning. So it would appear that the program's impact was stifled by the coach's previous learning endeavours. This meant that the course served but to reinforce much of what the coach already knew, rather than having introduced him to a substantial body of new information.

While Malete and Feltz (2000) did not directly study whether coach education attendance influenced knowledge, decision-making or practice, they did measure its impact on coaching efficacy. More specifically, the researchers had a group of coach learners ( $n = 36$ ) complete the Coaching Efficacy Scale both prior-to and after the attendance of a coach education programme comprising of two 6-hour sessions. Analysis of the learners' data demonstrated that course attendance had a significant impact on the practitioners' perceived ability to coach when compared to that of a control group ( $n = 24$ ). Although previous studies have demonstrated that efficacy is positively related to performance, there is unfortunately no way of confirming

whether the coaches in this study acquired further understanding or altered their coaching practices and decision-making processes as a result of course attendance.

McCullick et al. (2002) utilised a slightly different approach when attempting to evaluate the effectiveness of the Ladies Professional Golf Associations (LPGA) national education programme. The researchers employed a mixed method qualitative design (i.e., documentation analysis, field notes, interviews, and participant journals) and framed their findings against eight of Goodlad's (1990) tenets of effective teacher education. The authors discovered that the programme adhered to the framework's assumptions and concluded that golf teacher education (GTE) programmes must resultantly conform to the following criteria if they are to be effective: "(a) GTE programs must be run by a faculty that are in consensus about what golf teachers should know and do, (b) the faculty have to model the behaviors they wish to see from their graduates, and (c) the practice of teaching under the watchful and knowledgeable eyes of the faculty is necessary" (McCullick et al., 2002, p. 218).

Knowles et al. (2005) also used a theoretical framework when assessing the educational programmes of six UK national governing bodies. Using theory of reflection as a guide, the researchers established categories that they perceived should appear in educational documentation if a programme was actively supporting the teaching and development of reflective practice. Deductive analysis of the NGBs course documents revealed that the programmes did not provide clear structures for developing reflective skills. Analysis also revealed that while technical information relating to sport-specific tactics and techniques were often the primary focus, candidates were also presented with information relating to coaching principles, health and safety, law and ethics, and training theory. Nelson and Cushion (2006) also drew on theory of reflection as an analytical framework and found from their data (i.e., documentation review, in-depth interviews, and an observation) preliminary findings suggesting that a NGBs future courses were also unlikely to promote the development of reflective practitioners. So it would appear that despite reflection being a key means through which coaches learn (see the *Informal Learning Situations* subheading p. 14), it seems far from being fully embraced and embedded within coach education provision. While theoretical frameworks offer a means of evaluating the design and provision of courses, each theoretical lens will likely produce a slightly different analysis by stipulating what is deemed appropriate and effective. The focus



of a theoretically framed analysis is also likely to differ from the intended goals of those who designed the course under investigation.

Hammond and Perry (2005) recently utilised a mix-method design by collecting data through documentation analysis (i.e., syllabus documents), an interview (i.e., course instructor), notational analysis (i.e., of course delivery), and questionnaires (i.e., course attendees). Analysis of their data highlighted that the delivery of the two soccer courses under investigation deviated significantly from the syllabus guidelines. The authors discovered that these deviations related not only to the focus of content, but the delivery of information also. While the syllabus document recommended that delivery should be primarily practical in nature, analysis of the data revealed that attendees passively received information for approximately three-quarters of the course duration. Similarly, Gilbert and Trudel (1999) reported that the NCCPS course under study was as much as 6 hours 15 mins short of its recommended duration of 21 hrs 40 mins. Additionally, it was suggested that the course tutor failed to follow guidelines when allowing participants to access their course books during the end of course examination. So, early evidence would appear to support the proposition that delivery inconsistencies are a frequent occurrence (Campbell, 1993).

While the external evaluation of coach education programmes is a viable and potentially valuable line of inquiry, Gilbert and Trudel (1999) remain the only scholars to have considered the impact of course attendance on understanding, coaching practice, and whether provision matched the expectations of its learner. Information relating to these factors has, however, started to be collated through investigations that have attempted to draw on coaches' educational experiences, perceptions about provision, and thoughts relating to how it might be best enhanced. It is to this I will now turn.

### *2.2.2 Coaches Experiences & Perceptions of Coach Education*

Evidence has suggested that coaches tend to attach much less importance to formal coach education when compared to other more informal means of acquiring knowledge (Gould et al., 1990; Irwin et al., 2004; Schempp et al., 1998). When asked to comment on their experiences coaches have suggested that: (1) courses often give little more than a basic understanding and therefore offer but a starting point (Abraham et al., 2006; Jones et al., 2004); (2) they often arrive already knowing

about, and putting into practice, much of what is covered, meaning that little new knowledge is gained (Gilbert & Trudel, 1999; Irwin et al., 2004); (3) some of the theoretical material covered is considered too abstract from everyday practice to be considered worthwhile (Lemyre et al., 2007); (4) courses can be guilty of trying to cram too much information into a relatively short period of time (Lemyre et al., 2007); and (5) they have come to question much of the information acquired during courses as a neophyte later in their careers (Irwin et al., 2004). As a result of such experiences, some coaches have even admitted to attending later awards because of their being a compulsory requirement only (Wright et al., 2007).

While coach education has been viewed somewhat negatively, it should be noted that researchers have also reported that: (1) courses have provided some practitioners with an initial source of interest and enthusiasm (Irwin et al., 2004); (2) those with limited athletic or coaching experience have found attendance to be useful (Wright et al., 2007); (3) coaches have been highly appreciative of the practical components of formal courses (Lemyre et al., 2007); (4) practitioners have viewed the attendance of coach education as an ideal opportunity to meet and engage with other coaches (Irwin et al., 2004; Lemyre et al., 2007); and (5) some coaches have suggested that they gained greater understanding as a result of their attendance (Irwin et al., 2004). So it would appear that the findings are not all negative and lessons from these more positive aspects could be drawn. Nonetheless, it could be concluded from the views of those that the service is attempting to support that current forms of coach education provision are far from optimal. While coaches' perceptions of coach education provision will inevitably be shaped by their current understanding and previous experiences (Werthner & Trudel, 2006), it would appear that in its current format coach education only seems to adequately serve those possessing a limited amount of both. Researchers have as a result of these findings started to give greater consideration towards how future provision could be best enhanced. One fruitful approach that has begun to emerge is that of asking coach practitioners.

Whereas the vast majority of researchers have focused on asking coaches to retrospectively reflect on the educational activities that they have attended and consider the usefulness of the various programmes, McCullick et al. (2005) ascertained the perceptions of those actually in attendance of an LPGA course. The study's 31 participants consisted of 25 course candidates and five coach educators. Data were collected through focus group interviews (i.e., with educators and



candidates), journals (i.e., candidates reflections on the programme and course tutors), and observations (i.e., an investigator attended the course and kept field notes). Inductive analysis of the triangulated data revealed that participants enjoyed the curriculum's progression. Having knowledgeable educators able to present examples and provide feedback were also considered important. Indeed, the participants felt that the balance between class and practice time was a key aspect. The integration of research was also thought to be important, as content supported by a sound body of knowledge was deemed credible.

More recently, Chesterfield et al. (in press) investigated how six coach learners perceived and responded to the content knowledge and assessment processes of an advanced football coaching award programme. Analysis of the interview data revealed findings in-keeping with Nelson et al.'s (2006) assertion that formal provision can be described as indoctrination in some cases. The participants of Chesterfield et al.'s (in press) study felt that the course required them to structure sessions, deliver information to players, and provide feedback, in a manner prescribed by the instructor. The learners largely rejected the methods advocated, as they were not seen to be relevant and applicable to their actual coaching contexts. 'Studentship' (Graber, 1991) and 'impression management' (Goffman, 1959) were resultantly employed by the coach learners as strategies to pass the course. This entailed shaping coaching behaviours, and completing course logbooks, to meet the perceived expectations of their examiner. So the studies of Chesterfield et al. (in press) and McCullick et al. (2005) have once again demonstrated a contrast in the learners' experiences of and perceptions about the value of formal coach education.

An increasing number of higher education institutions have offered academic courses focusing on the study of sports coaching over the past decade (Jones, 2005; Lyle, 2002). Increased provision has arguably resulted from a growing appreciation towards coaching as an intellectual endeavour requiring practitioners who are capable of engaging in complex socio-cultural processes akin to that of an educator (Jones, 2000, 2006). This situation has allowed coaching scholars to present and experiment with theoretically informed alternative approaches to the delivery of coach education. Knowles, for example, recorded her learners' experiences of a second year undergraduate module designed to facilitate their ability to reflect (Knowles et al., 2001). Students were first required to attend lectures on the theory and practice of reflection. This was followed by the completion of a 60-hour coaching placement, the



attendance of reflective workshops, and the keeping of a reflective diary. Analysis of the participants' ( $n = 8$ ) reflective journal entries and interview data demonstrated that course attendance resulted in an enhanced ability to reflect. Six of the eight coaches appreciated their having had an opportunity to openly discuss coaching issues with other group members. Despite these positive findings, Knowles et al. (2001) concluded that the "development of reflective skills is not a simplistic process even with structured support. Coach educators cannot therefore assume that development of reflective skills will be a naturally occurring phenomena that runs parallel to increasing coaching experience" (p. 204). In a follow-up study, Knowles et al. (2006) discovered that while graduates continued to engage in reflective practice post-course, their approaches were different to those espoused during the course. The results demonstrated that the participants only engaged in technical reflection, tended to focus on negative aspects, and no-longer kept reflective diaries. Knowles et al. (2006) argued that these findings could be explained by their participants having to work in a culture that lacks accountability, requires coaches to practice in isolation, and that tends not to present coaches with opportunities to engage in structured reflection.

Reflection would appear a central theme as Nash (2003) also published a study outlining a third year undergraduate module designed to develop her students' capacity to engage in reflective practice. Central to Nash's (2003) course was formalised mentoring. Students ( $n = 115$ ) were required to engage a 36-hour work placement under the guidance of a mentor coach ( $n = 110$ ). Both parties filled in a questionnaire comprising open and closed questions upon completing the placement. Analysis of the data revealed that effective mentors were identified as possessing the following five qualities in rank order: (1) effective communication skills; (2) knowledge of their sport; (3) experience; (4) approachability; and (5) enthusiasm. Interestingly, the top three qualities highlighted by the coach learners were effective communication skills, approachability, and enthusiasm, whereas the mentors ranked knowledge of sport, experience, and organisation and leadership most highly. So it would appear that discrepancies existed between the views of protégés and their mentors, with the former more concerned about the human element of this interpersonal relationship when compared to the latter.

Jones and Turner (2006) also studied students' perceptions of their own 12-week undergraduate university based module. Grounded in dissatisfaction towards the unrealistic one-dimensional view of coaching presented by traditional courses, Jones



and Turner (2006) recorded their students' experiences of a course delivered using a problem-based learning approach. Analysis of the semi-structured group interview data suggested that this alternative method presented learners with a rare opportunity to explicitly implement theoretical knowledge in an integrated fashion. This helped their students to start developing an appreciation of the coaching process's inherent complexities. The incorporation of peer assessment was, however, reported-on less positively. Students found its inclusion to be a 'surreal' experience during which they tended to prescribe lenient grades due to personal relationships, rather than performing critical analyses of their peers' contributions. Jones and Turner (2006) concluded from their study that problem-based learning offers an approach that could, "help coaches towards the higher goals of transferable knowledge, considered flexibility and lifelong learning" (p. 199).

A study by Cassidy et al. (2006) is another investigation where the authors documented students' experiences of attending their course. Eight rugby coaches, of a provincial representative team, voluntarily attended the programme over a period of six months, with the contact time totalling 28 hours. The course was classroom based and focused on the application of coaching theory. Cassidy et al. (2006) reported that the group established what resembled a 'community of practice' (Wenger, 1998), with the attendees actively engaged in the sharing of experiences and understandings. In-depth semi-structured interviews were conducted with each coach learner upon their having completed the programme. The results indicated that coaches were appreciative of the courses theoretical exploration of the coaching processes inherent complexities, its having assisted their critically reflecting on practice, and its having provided them with an opportunity to engage in group discussion.

This section has reviewed literature discussing coaches' perceptions and experiences of coach education. Research in this area has either presented coaches' retrospective reflections on the educational activities that they have attended (Abraham et al., 2006; Irwin et al., 2004; Jones et al., 2004; Lemyre et al., 2007; Wright et al., 2007) or documented their experiences while completing a particular course (Cassidy et al., 2006; Chesterfield et al., in press; Jones & Turner, 2006; Knowles et al., 2001, 2006; McCullick, 2005; Nash, 2003). While the exploration of retrospective reflections have provided valuable insights into practitioners' thoughts about the usefulness of NGB awards, research on learners' experiences of specific courses has tended to focus on undergraduate modules that form part of degree



programmes. Indeed, only Chesterfield et al. (in press) and McCullick et al. (2005) have purposely investigated coaches' experiences of programmes certifying those that graduate as coaching practitioners. Understandings gathered from those studies that retrospectively analysed coaches' educational experiences demonstrated that coach education provision, while not without its positives, has tended to be far from optimal (Abraham et al., 2006; Irwin et al., 2004; Jones et al., 2004; Lemyre et al., 2007; Wright et al., 2007).

It was also highlighted that a rising number of university-based programmes have allowed educator-researchers to experiment with and resultantly advocate communities of practice, mentoring, problem-based learning, and reflection as means of enhancing the provision of coach education (Cassidy et al., 2006; Jones & Turner, 2006; Knowles et al., 2001, 2006; Nash, 2003). In addition to this, competency-based learning (Demers et al., 2006) and issue-based learning (Gilbert & Trudel, 2006) have also been presented as frameworks that could guide the practices of educators. This review therefore concurs with Lyle's (2007) observation that, "there are many prescriptions for 'better' coach education", which are "founded on an emerging conceptualisation of coaching as a complex, dynamic, uncertain, and highly contextualised practice" (p. 29). Having made this observation, Lyle (2007) goes on to contend that these prescriptions are generally what he describes as "arguments for" rather than "evidence of" (p. 29). For Lyle (2007), "arguments for" are theoretically informed reasons for utilising a certain pedagogical approach, whereas "evidence of" is based on empirical evidence of its superiority over other educational methods. While experimentally testing theoretical frameworks through application in practice seems essential to the identification of an optimal approach, there are of course innumerable theories that coach educators could possibly draw. One means of short-circuiting this search is to ask coaching practitioners how they perceive coach education could better serve their developmental needs and then draw on theory that helps make sense of this data. So I will now give consideration towards research that asked coaches to make suggestions about how provision might be enhanced.

### *2.2.3 Coaches Thoughts about Enhancing Provision*

Gould et al. (1990) were the first scholars to collate and report coaches' opinions about how coach education could best serve the needs of developing practitioners. Through the use of questionnaires, containing both open and closed questions, the



authors were able to gather data from as many as 130 elite US coaches that were practicing in a large range of individual and team sports. Their data revealed that the acquisition of coaching experience, sports science knowledge, and engagement in formal mentoring programmes, were all considered to be the most important aspects for the future preparation of elite level coaches. Building upon this study, Bloom et al. (1995) interviewed 21 expert Canadian coaches and elicited similar results. The coaches in their investigation highlighted the importance of four developmental approaches: (1) clinics, seminars and symposiums; (2) hands-on experience; (3) passive observation of other coaches; and (4) structured mentoring programmes. While the first three areas were reported as receiving equal attention, the authors stressed that mentoring acquired the most support. Like their Canadian counterparts, the coaches in Gould et al.'s (1990) study also acknowledged the importance of courses, especially those relating to the exploration of sport science literature. Consistent with the findings reported by both of these studies, Salmela (1995) also found from his interviews with 21 expert team sport coaches that mentoring was perceived as being the most effective means of enhancing the impact of coach education. The coaches in Salmela's study also saw the need to preserve institutionalised forms of coach education, as the results suggested that the bringing together of formal education and real life coaching experiences could help to assure that coaches are appropriately educated.

While these initial studies concentrated on the development of performance coaches, Wiersma and Sherman (2005) recently strove to establish the educational recommendations of voluntary youth sports coaches. Data from the interviews of five separate focus groups, containing between three and eight coaches and comprising 25 participants in total, revealed the importance attached to: (1) alternative delivery approaches (i.e., other than workshops and clinics), which included making more resources readily available (e.g., books, newsletters, and websites); (2) formal mentoring schemes; (3) breaking up all day courses into several smaller (90 min to 2 hr) gatherings spread throughout the season; (4) engaging in round table discussions where they could discuss topics and share drills, knowledge, and experiences; (5) active workshops that include live demonstrations and opportunities to gain 'hands-on' experience; and (6) courses that have both age-specific and level-specific content.

Gaining coaches' opinions about how programmes could be best tailored to suit their learning wants and needs would appear to be a useful area of inquiry. To



date, however, this remains an under investigated area the findings of which have been collated exclusively from coaches practicing in Canada and the United States. There is currently little appreciation of the perceptions, experiences, and proposition of those coaches practicing in other countries. While these studies have provided valuable insights that could usefully guide a more detailed theoretical analysis, they remain largely descriptive in nature. Additional research is therefore required. Gaining UK coaching practitioners' perceptions about how coach education could optimally support their development would, for example, be a useful addition to the literature. Any such investigation should strive to draw on theory that could help analyse and make sense of its findings. A dearth of research is consequently required to further establish how coach education could better support the development of coaching practitioners. Continuing professional development research offers a body of knowledge from which further understanding could be acquired.

#### *2.2.4 Synergies between Coach Learning & CPD Literature*

As another part of a broader concept of coach learning, the term continuing professional development (CPD) has recently “marched into the discourse of education” (Armour & Yelling, 2004a, p. 96) and has filtered its way through to the literature discussing the development of physical education teachers (Armour & Yelling, 2004b) and sports coaches (Cushion et al., 2003; Jones et al., 2004; Sports Coach UK, 2004). Craft (1996) has defined CPD as, “all types of professional learning undertaken by teachers beyond the initial point of training” (p. 6). As Nelson et al. (2006) point out, however, the phrase “beyond the initial point of training” (Craft, 1996, p. 9) can be more easily identified in physical education than coaching. Physical education teachers in the UK, for example, are required to undertake a higher education qualification before being permitted to work autonomously within an educational institution (Capel, 2004). This would constitute the physical education teachers' initial education and any professional learning thereafter clearly identifiable as CPD. Coaching, however, is considerably different in that it is possible to practice without any formal qualifications. This is well illustrated by the fact that only 38% of the UK's 1.2 million coaches held a formal qualification in the sport they coach in 2004, a figure that raised to 50% by 2006 (Sports Coach UK, 2007). Coaches can undertake undergraduate and postgraduate studies in coaching or sports science disciplines, but these qualifications do not certify the graduate as a coaching



practitioner as they are not formally recognised by the UK sport's NGBs (Nelson et al., 2006). As such, an individual intending to become an accredited coaching practitioner can only do so by undertaking their sport's national governing body coaching award(s). So we are left with the paradoxical position of a NGB qualified coach seeing a university qualification as CPD, while a coach undertaking their degree before an NGB award sees that qualification as part of their initial step in formal coach learning (Nelson et al., 2006).

Within a broader umbrella of coach learning, it is possible to adapt Craft's (1996) definition of CPD to read, "all types of professional learning undertaken by coaches beyond initial certification" (Nelson et al., 2006, p. 255). If this definition were to be adopted, the term initial certification could arguably replace and encompass 'initial training' (depending on the focus of the certification process) plus any other nonformal and informal learning undertaken prior to becoming certified. With respect to the term 'professional', however, it should be noted that coaching remains an 'emerging profession' in many western nations (e.g. UK, Australia, New Zealand) (Campbell, 1993; Kidman, Hadfield, & Chu, 2000; Sports Coach UK, 2004). In the UK, for example, only 7% of the 1,177,000 coaches work in a full-time capacity, whereas 70% of the coaching workforce comprises of unpaid volunteers (Sports Coach UK, 2007).

Definitional considerations aside, the CPD literature arguably offers another source from which coaching researchers could draw valuable lessons. Garet, Porter, Desimone, Birman, and Yoon (2001), for example, completed an extensive investigation through the surveying of 1027 mathematics and science teachers that had undertaken funded CPD activities. From their data they were able to statistically establish links between the structural (i.e., form, duration, and degree of collective participation) and core (i.e., content focus, degree of active learning, and level of coherency) characteristics of the participants' CPD activities and their self-reported impact on the development of knowledge and practice. The authors discovered that effective CPD activities involved a substantial investment of time, focused on academic subject matter, provided teachers with 'hands-on' opportunities, and were integrated into the daily life of the school.

Perhaps of even greater significance is a project recently completed by Armour and Yelling (2002; 2004a; 2004b; 2007) into the CPD activities and experiences of physical education teachers. The first two phase of this project



(Armour & Yelling, 2002; 2004a; 2004b) involved 85 experienced physical education teachers and collated data via semi-structured interviews (20 teachers) and open-ended profile questionnaires (a further 65 teachers). Analysis of the data revealed that practitioners CPD experiences generally lacked relevance and coherence. Moreover, the teachers reported effective CPD as being: (1) practical; (2) relevant and applicable; (3) able to provide ideas and practices; (4) delivered by a good presenter; (5) challenging and thought provoking; and (6) able to offer time for reflection and collaboration. The participants also advised policy-makers to give careful consideration to course funding, cost and quality of supply cover, time and teacher workload, and the location of CPD activities. Evidence from a study examining the professional lives of Irish physical education teachers also provided evidence suggesting that the participant teachers under investigation desired professional development activities that provide practically relevant content (O'Sullivan, 2006).

The final phase of Armour and Yelling's (2007) research project tracked the learning activities of 10 case study teachers over an academic year. Through a mixed method design (i.e., field notes, learning diaries, individual interviews, and a focus group interview) it was discovered that the participant teachers often considered the attendance of 'official' CPD courses as 'hoop jumping' exercises necessary for CV construction. While such courses were not always held in high regard, the teachers often valued their attendance because it offered an opportunity to interact with other practitioners. Moreover, the teachers attempted to overcome the shortcomings of formal provision by engaging in informal self-selected professional learning networks. Armour and Yelling (2007) highlighted that these 'unofficial' activities somewhat ironically presented precisely the kind of CPD that is recommended by much of the literature discussing effective professional learning. As a result, they went on to suggest that PE-CPD provision should be turned on its head.

Deglau, Ward, O'Sullivan, and Bush (2006) attempted to formalise this process by providing 17 physical education teachers with an opportunity to engage in a professional development activity that embraced interaction. Evidence from their research demonstrated that the participant teachers, "willingly shared their own practices and sought advice from peers" (p. 427). So it would appear that physical education teachers appreciate opportunities to learn alongside other practitioners in the field. Research has also demonstrated that teachers, not only in physical education



but across a diverse range of disciplines, have stressed a desire for more collaborative learning opportunities (Sandholtz, 2002).

So it would appear that similarities exist between findings of the coach learning literature and that of research investigating teachers' CPD activities. The practitioners from each of these domains, for example, stress that developmental courses rarely meet their expectations and that informal learning through interactions with peers are held in much higher regard. Furthermore, they make similar recommendations for the enhancement of the future provision, which include making learning activities more personally meaningful through the exploration of relevant content, inclusion of practical experiences, and situated learning activities. CPD literature would consequently appear to be another valuable domain that coaching researchers could potentially draw on to further develop understanding and theory.

In summary, the preceding sections reviewed research into coach education. Analysis of the literature revealed three lines of inquiry, which sought to: (1) externally evaluate coach education provision. This included studies that have attempted to directly measure the impact of coach education attendance and investigations that evaluated programmes against a known theoretical framework; (2) study coaches' thoughts about the usefulness of their coach education experiences. This included retrospective reflections on educational activities completed and investigations into the experiences of attending a particular course; and (3) established coaching practitioners' perceptions about how they would enhance the future provision of coach education. A finding consistent across all three lines of inquiry was that interviews, and questionnaires to a lesser extent, have been employed as a method of data collection. So these two methods have presented useful means of collected data that has further developed understanding in this area of academic study.

In his recent analysis of coach education research, Lyle (2007) concluded that the impact of coach education courses remains unevaluated. The present review has supported this interpretation by demonstrating that the direct evaluation of attendance on coaching knowledge, decision-making, and coaching practices has been largely unexplored. It was highlighted, however, that research capturing coaches' experiences of coach education has started to paint a sobering picture (Abraham et al., 2006; Chesterfield et al., in press; Irwin et al., 2004; Jones et al., 2004; Lemyre et al., 2007; Wright et al., 2007). While not unequivocal, this increasing body of knowledge has demonstrated that practitioners have tended to view the provision of coach education

as having been far from optimal. The fact that coaches have reported informal mentoring and practical coaching experiences to be their primary sources of knowledge development bears testimony to this (Gould et al., 1990; Irwin et al., 2004; Schempp et al., 1998). Such findings have supported those concerns that have been raised by numerous coaching scholars (e.g., Abraham & Collins, 1998; Cassidy et al., 2004; Cushion et al., 2003; Gilbert & Trudel, 2006; Jones & Wallace, 2005; Saury & Durand, 1998).

In an attempt to remedy this situation, it was found that communities of practice, competency-based learning, issue-based learning, reflection, mentoring, and problem-based learning have all been prescribed as possible alternatives. While these may prove useful, it was argued that there are innumerable theoretical frameworks that coach educators could potentially draw on to guide their practices. It was suggested, therefore, that approaching coaching practitioners about how coach education might be better designed to facilitate their development could prove useful. While this process has already been started in both Canada and the United States, it was highlighted that the perceptions of UK practitioners remain unexplored and that the presented findings have tended to be largely descriptive. Having reviewed literature discussing the situations in which coaches learn, I will now explore those factors that motivate and deter learning engagement.

## *2.3 Coach Learning Motives & Deterrents*

### *2.3.1 Learning Motives*

It has been demonstrated throughout this review that coaches acquire knowledge from a diverse range of sources. While the investigation of learning situations has proved to be a valuable line of inquiry, a tendency to focus on this topic has arguably come at the expense of investigating equally important aspects of coach learning. There has, for example, been little consideration of the underlying factors motivating coaches to engage in ongoing learning.

Scholarly activity has traditionally focused on the motives driving participation in the practice of coaching (Lyle, 2002). Research in this area has shown that participants have been motivated by the enjoyment gained from engaging in practical coaching, their having had a desire to help others improve, and because they wished to give something back to their sport (English Sports Council, 1997; Lyle, Allison, & Taylor, 1997; Tamura, Davet, & Haslam, 1993). Although this is a



worthwhile and necessary line of inquiry, as a sub-component of coach motivation, factors driving participation in coach learning have often been overlooked. Notwithstanding this, there are a few notable studies that have recently started to shed some light on this important area (Sports Coach UK, 2004; Vargas-Tonsing, 2007). Given the limited investigation of coach learning motives, research will be integrated and discussed as part of a broader review of literature discussing adult learning motives. This will open with an exploration of factors driving participation within educational endeavours.

The first notable study within this domain was arguably that completed by Houle (1961) who utilised in-depth interviews to study 22 exceptionally active adult learners. Analysis of his data lead Houle to propose a typology in which the participants were categorised under three learning orientations: (1) Goal-oriented (i.e., those who used learning as a means of accomplishing fairly clear-cut objectives); (2) Activity-oriented (i.e., those who took part because they found in the circumstances of learning a meaning which has no necessary connection with the content or the announced purpose of the activity); and (3) Learning-orientated (i.e., those who sort knowledge for its own sake due to a fundamental desire to learn). Houle's research stimulated further inquiry attempting to affirm or refine his original typology. A large proportion of this research was completed using Boshiers (1971) Education Participation Scale (EPS). This tool was specifically designed to identify the reasons that adults gave for enrolling onto courses. Morstain and Smart (1974), for example, found from their analysis of 611 adult learners EPS data that Houle's typology could be extended from three to six factors: (1) Cognitive interests (i.e., pursuit of knowledge for its own sake); (2) Escape/Stimulation (i.e., relief from everyday responsibilities and routine); (3) External expectations (i.e., to meet the expectations of others, rather than their own intrinsic interests); (4) Professional advancement (i.e., to achieve a higher status in their chosen occupation); (5) Social relationships (i.e., to make acquaintances and participate in group activities); and (6) Social welfare (i.e., to prepare themselves for participation in community affairs). Boshier himself also conducted a comprehensive test of Houle's typology by employing his own EPS scale (Boshier & Collins, 1985). Using cluster analysis the authors analysed the responses of 13,442 learners (from Africa, Asia, Canada, New Zealand, and the United States of America) and discovered that Houle's (1961) typology should be extended to a six-factor model. Participants were deemed to enrol because of: (1) Cognitive interest; (2)



Community service; (3) External expectations; (4) Professional advancement; (5) Social contact; and (6) Social stimulation. So despite differences in the terminologies employed by researchers, it would appear that the reasons for engaging in adult education lie in a cluster of orientations that are largely comparable (Jarvis, 2004).

Research completed in the adult learning literature has served to highlight the importance of investigating what motivates learners to enrol onto educational courses. Despite this, research conducted in the domain of sport has instead focused on attitudes towards professional education and what incentives might encourage further participation. Hughes (2005), for example, reported findings gathered from 268 certified athletic trainers (i.e., working within the sport or healthcare industry) completion of a Likert scale questionnaire, namely the Adult Attitudes Towards Continuing Education Scale (AATCES). The results of this study indicated that the participants generally held a favourable attitude towards continuing professional education (CPE) and saw it as an important factor in their ongoing development. While this demonstrated that these practitioners considered CPE to be of importance, the focus of this study meant that the reasons for current or future engagement remained unknown. Although inferences might be drawn, Hughes's (2005) study did not focus on coaching practitioners. Coaches were, however, the focus of a study completed by Sports Coach UK (2004).

Sports Coach UK (2004) asked both unqualified coaching practitioners (i.e., individuals who had practiced without being certified) and coaching providers (i.e., local authority, university, and school representatives) what they believed would encourage the obtainment of coaching awards. Unqualified coaches most frequently cited more local courses and the availability of free courses. Similarly, coaching providers most regularly made reference to the importance of making further funds available to support coaches in their ongoing development. While this study did not provide insight into the reasons for engaging in professional learning, it did nonetheless discover what might motivate practitioners to engage in coach education.

Vargas-Tonsing (2007) also utilised a Likert-scale based questionnaire to gather 366 youth sport coaches' (who were attending an introductory coaching clinic) opinions on what might enhance the likelihood of their pursuing advanced forms of coach education. The results indicated that the coaches would be more inclined to engage in higher-level education if attendance was made a mandatory league



requirement or if they could be certain that course content would enhance their ability to coach by being directly relevant to their learning requirements.

Gathering coaches' perceptions about how to enhance coach education participation is therefore a valid line of inquiry that is starting to elicit insightful data. Those factors that have motivated coaches to actually engage in coach education, however, remain unexplored. It would seem important that this be addressed, as it is an area that has been explored within the literature of established professions and has proven to produce useful understanding. Garst and Ried (1999), for example, utilised an adapted version of the EPS to discover the motivational orientations of 147 pharmacy students. The researchers discovered that their participants were largely internally motivated to enhance their practical competencies and to provide a service to the community. Similarly, Laszlo and Strettle (1995) discovered that midwives were also highly driven by an internal learning desire, which was independent of external factors. A desire for knowledge and enhance competency were the two highest reported motives for continuing professional education engagement. In a study of 225 licensed social workers, Dia, Smith, Cohen-Callow and Bliss (2005) also found that practitioners were primarily driven by the desire to acquire professional knowledge.

Studies utilising the Participation Reasons Scale (PRS) (Grotelueschen, Harnisch, & Kenny, 1979) have also elicited comparable findings. Cervero's (1981) factor analysis of data derived from 211 practicing physicians, for instance, identified 4 reasons for participation within professional education. The authors discovered that participants engaged in CPE to: (1) maintain and improve professional competence and service to patients; (2) enhance personal and professional position; (3) understand oneself as a professional; and (4) interact with colleagues. Likewise, Langsner (1993) employed the PRS with 408 therapeutic recreation specialists and highlighted five reasons in the following order of importance: (1) professional services; (2) professional improvement and development; (3) collegial learning and interaction; (4) professional commitment; and (5) personal benefits and job security. A study into 731 librarians in attendance of a CPE programme also elicited comparable findings (Smith & Burgin, 1991). Analysis of their PRS data revealed four principle components (i.e., professional competence, patron service, collegiality, and personal concerns) with the librarians being primarily motivated by a desire to improve their capacity to provide



an enhanced level of service. The participants were least motivated by financial gains, job security, and the likelihood of professional advancement.

This section has so far reviewed research investigating what motivates people to engage in education. It has been demonstrated that the sporting literature has tended to focus on practitioners' attitudes towards education and what factors might enhance the likelihood of participation. While these are acknowledged as being useful lines of inquiry, factors driving coaches' actual participation have been identified as requiring investigation. Literature in other domains has also been explored. The findings of the reviewed studies have highlighted that educational engagement has tended to be internally driven by a desire to acquire knowledge that could enhance practical competencies. It has been shown that practitioners tend to pursue this knowledge in hope that it will allow them to provide a better level of service to their clients. Although the literature reviewed was shown to consistently report similar findings, it would be naïve to directly infer to coaching from these previous investigations. Many of these studies were conducted in the health care industry where professions are well established. Coaching, on the other hand, remains an emerging profession with the vast majority of its workforce practicing voluntarily on a part-time basis (Kay, Armour, Cushion, Thorpe, & Pielichaty, 2008). Research specifically investigating the educational motivations of sports coaches is therefore necessary. While an exploration of the motives driving education participation is important, the investigation of motives should not be restricted to the realm of education only. As has already been demonstrated coaching practitioners also learn in informal situations (see the *Informal Learning Situations* subheading p. 14).

Despite much learning occurring outside the walls of educational institutions, research into learning motives has focused almost exclusively on factors driving engagement in education (Jarvis, 2004). A notable exception was a study by Dixon (1993) who investigated, via questionnaire, the characteristics of 88 practicing nurses' self-directed learning (SDL) projects. The author reported, amongst other things, that the nurses' primary reasons for completing these studies were associated with their anticipated ability to apply the knowledge or skills gained from their projects. It was also discovered that practitioners were highly motivated by the increased self-esteem and pleasure they thought would be gained from participation. Learning for others, to gain credits, and to acquire knowledge for material reward, promotion or a pay rise, were all considered of lesser importance.



Although research into SDL projects is able to capture informal learning motives, they are by design, like those studies that have focused entirely on education, unable to report on learning in its most comprehensive format. This position has, however, begun to change. As was previously discussed, the phrase CPD has gained greater status as it offers a broad umbrella term that recognises the diverse avenues through which professionals learn post initial certification (see the *Synergies between Coach Learning & CPD Literature* subheading p. 29). Its acceptance has initiated a new strand of research into learning motives. Gunn and Goding (in press), for example, recently interviewed 11 practicing physiotherapists to gain insight into their CPD experiences. As part of their broader study, the authors discovered that CPD engagement was driven by a strong sense of professional obligation, a wanting to provide the best level of service possible, the personal satisfaction gained from learning, and the practical application of acquired information. Likewise, Ryan (2003) concluded from the analysis of Likert scale questionnaire data that her participant nurses ( $n = 94$ ) were intrinsically motivated to pursue CPD with the objective of acquiring additional professional understanding. Analysis of the professional learning literature has therefore demonstrated that the investigation of factors driving learning engagement is a well-established line of inquiry. Studies into coach learning motives would resultantly appear a useful addition to the coaching literature. Any attempts should, however, acknowledge the various situations in which practitioners learn.

Literature discussing learning motives was reviewed within this section. It was discovered that questionnaires have been the primary data collection instrument, although interviews have also been utilised. While a unified body of knowledge was presented, those studies relating to vocational learning have tended to be conducted with professionals from the health care industry. In acknowledgment that coaching remains an emerging profession, it was argued that the results of these studies should not be directly inferred. So additional research into coaches' learning motives was identified as being necessary. Coaching research was shown to have focused on what factors might encourage further coach education participation. Although the findings of this line of inquiry have elicited useful information, it was proposed that researchers should also strive to understand what has motivated coaches to actually engage in coach education. The investigation of motives should not, however, be limited to participation within education. It was contended that coach learning should be recognised in its broadest sense, as coaches do not only learn while attending



courses. The present study aimed to investigate what factors drive coaches to engage in learning across all situations. Having discussed those factors that contribute towards learning engagement, literature examining barriers to learning are not reviewed.

### *2.3.2 Learning Deterrents*

A related yet contrasting area of investigation is the identification of learning barriers. Consistent with the study of learning motives, deterrents to coach learning engagement have been largely unexplored. The following section therefore integrates coaching studies into a broader review of literature discussing barriers to learning.

Research into learning deterrents, like its motivational counterpart, has its routes in the adult education literature. In her early review, Cross (1981) formed a useful and widely acknowledged typology (e.g., Care, Russell, Hartig, Murrell, & Gregory, 2007; Harrison, 1993; McGivney, 1993; Merriam & Brockett, 1997) that has more recently been utilised within research projects as a conceptual framework (e.g., Human Resources Development Canada, 2001; Sussman, 2002). Cross specifically suggested that learning deterrents can be broadly classified under three distinguishable categories, namely: (1) Situational barriers (e.g., lack of money, time, transportation, etc); (2) Institutional barriers (e.g., inappropriate course costs, inconvenient course schedules, irrelevant courses of study, etc); and (3) Dispositional barriers (e.g., lack of confidence, desire, interest, etc). Consistent with earlier reports, more recent national surveys have once again served to demonstrate that adults most frequently report situational barriers (i.e., being too busy and a lack of money) and institutional barriers (i.e., courses being held at inconvenient times, locations, and at too higher cost) as the major reasons for education non-participation (e.g., Human Resources Development Canada, 2001; Sussman, 2002).

Valentine and Darkenwald (1990) attempted to move beyond Cross's (1981) three-part typology when reviewing findings derived from the Deterrents to Participation Scale (Scanlan & Darkenwald, 1984). Having re-analysed their data from an earlier study, the authors suggested that factors deterring adults from engaging in education could be clustered into five distinct categories, which they offered as a typology: (1) Educational costs; (2) Lack of confidence; (3), Lack of interest in available courses, (4) Lack of interest in organised education generally, (5) Personal problems. While this extends the original typology, Valentine and



Darkenwald's (1990) categories arguably collapse into Cross's (1981) original classifications. Whereas those studies mentioned so far have tended to concentrate on the general public at large, Langsner (1994) specifically employed the DPS to discover what factors acted as deterrents to 388 therapeutic recreation specialists' CPE engagement. Their data revealed that cost represented the largest deterrent. The second factor was work constraints, which was followed by an absence of quality courses, few benefits associated with attendance, family constraints, and educational disengagement.

The learning literature has demonstrated that the investigation of learning deterrents is a legitimate and important area of academic study. The investigation of learning barriers has, however, been largely overlooked in the sporting literature, although two notable studies are now considered. Hughes (2005) utilised the DPS scale to identify the educational barriers of 268 athletic trainers, working with the sporting or healthcare industries. The author determined from his analysis that while the participant population perceived there to be few CPE deterrents, a lack of course relevance, time, and cost were all highlighted as possible barriers. Of greater significance was an investigation by Sports Coach UK (2004). As part of a broader project, the study explored what local authority and university representatives considered to be preventing coaches from attempting to obtain coaching qualifications. Analysis of the data demonstrated that respondents perceived the associated cost of attendance, few locally run courses, and a lack of time, as being attributable. While the findings of the Sports Coach UK (2004) study have identified barriers that might be deterring coach education participation, they are based on the opinions of non-coaches. Future investigations might usefully build on the findings of this study by asking coaching practitioners what factors, if any, have deterred them from taking additional courses.

The investigation of learning barriers should not be limited to the study of coach education. Researchers in other domains have recognised the importance of studying barriers to learning more broadly. Dixon (1993), for example, utilised a questionnaire design to identify those deterrents that stopped practicing nurses from engaging in work related SDL projects. Analysis of the 88 participants' data revealed that 55% of the nurses identified time as an obstacle, 46% reported the selecting of a study topic as a barrier, and contrary to previous reports Dixon (1993) found that only 9% of the nurses considered money to have been a deterrent. This finding might be



explained by the fact that these participants were employees of a recognised profession, something that sports coaching has not yet achieved (Kay et al., 2008).

Research into learning deterrents, like that of learning motives, has also permeated into the domain of CPD. King's (2004) investigation of the CPD practices of 192 higher education teachers demonstrated that a lack of time (84%) and the pressure to publish (53%) were the main barrier to further CPD engagement. Other deterrents included funding (21%), a lack of personal interest (12%), and a lack of encouragement (12%). It should be noted that nine of the participants (5%), however, suggested that they perceived there to be no barriers at all. O'Sullivan (2003), on the other hand, utilised in-depth interviews to study the CPD experiences of 20 chartered physiotherapists. The author discovered that while these practitioners were highly motivated towards the concept of CPD engagement, many actually felt guilty about taking time out to learn. A demanding work environment, where patient needs were considered paramount, meant that these practitioners found it difficult to justify taking time out of their working schedules. Likewise, the physical education teachers of a study completed by Armour and Yelling (2007) also stressed that CPD, in its traditional format (i.e., the attendance of formal courses), was not only perceived by practitioners as being expensive, but was actually thought to cause disruption to pupil learning by their being away. So teachers were reluctant to engage in as much CPD as they might have otherwise liked. Analysis of the professional learning literature has demonstrated that the investigation of barriers to learning is also a well-established line of inquiry. Studies into coach learning deterrents would resultantly appear a useful addition to the coaching literature. Research into coach learning deterrents, like that of coach learning motives, should however recognise the diverse situations with which coaches engage.

This section has reviewed literature discussing learning deterrents. It was discovered that questionnaires, and to a lesser extent interviews, were the most frequently employed method of data collection. A key finding was that a lack of time and money were consistently reported by adult learners as the major barriers to further learning engagement. Research into the learning of active professionals demonstrated that work related pressures not only made 'learning time' hard to find, but also equally difficult to justify. In relation to educational courses, it was reported that learners often found cost, timing, and location to be deterrents. These factors were at times further compounded by negative views about the likely associated quality of



courses and the benefits (or not as the case may be) of attendance. The research evidence also suggested that issues specific to the learner (i.e., a lack of confidence, drive, etc) have also been found to contribute towards non-participation. While a considerable body of knowledge was presented, those studies relating to vocational learning tended to be conducted with individuals working within established professions. Coaches work within a vastly different industry. Research specifically investigating the learning deterrents experienced by sports coaches would therefore seem important. Consistent with the argument presented for the investigation of motives driving coach learning, the study of coach learning deterrents should not be limited to coach education participation. It was suggested that coach learning should be recognised in its broadest sense.

### *Conclusions*

This review of literature has critically examined coach learning by exploring types of coaching knowledge, situations that coaches learn in, and learning motivations and deterrents. In doing so, it presented an attempt to unify a somewhat fragmented body of knowledge. Nevertheless, it should be acknowledged that there is a paucity of empirically informed research into coach learning and that academic inquiry has tended to develop along serendipitous lines, rather than by a conceptually oriented research agenda. Given the limited amount of research upon which to draw, literature from the fields of adult and professional learning was also reviewed in an attempt to identify pertinent areas of inquiry. This was deemed necessary as a focus on coaching specific research would have restricted discussions to a 'hand-full' of articles in many instances. For example, Abraham et al. (2006) were identified as being the only scholars to have investigated the underpinning knowledge structures of coaching practitioners. Similarly, findings relating to factors driving and deterring coach learning were seemingly limited to data presented by Sports Coach UK (2004) and Vargas-Tonsing (2007). However, it was shown that these two studies had focused on what restricts coaches from enrolling onto coach education programmes and what incentives might increase future participation. So it was found that there has yet to be consideration of those factors that motivate and deter practitioners that have been learning to coach for an extended period of time and from many sources. What is clear then, is that coach learning remains a vastly under-research terrain, so much exploratory work is required before further and more in-depth analysis can take place.



Even in instances where a growing body of knowledge is forming, much is still to be learnt. The investigation of coach learning sources was illustrative of this.

While the investigation of coach learning sources was identified as being one of the more established lines of inquiry, it was discovered that the vast majority of the research conducted in this area had been completed in Canada and the United States, with an almost exclusive focus on coaches of elite level athletes. So there is currently little understanding about the learning activities of UK coaches and practitioners across a range of levels. It would seem important that similar research be conducted with coaches practicing in the UK, as the transatlantic validity of these findings cannot be assumed. Similarly, the investigation of coach education presents another example of a more established area of inquiry where much is still to be understood.

A review of the coach education literature revealed that coaching practitioners have tended to perceive its provision as being far from optimal. In an attempt to remedy this situation, coaching scholars were shown to have prescribed a number of possible alternatives. While experimentation through practical implementation was recognised as a necessary process, it was suggested that there are innumerable theoretical frameworks that coach educators could potentially draw on to guide their practices. Asking practitioners to reflect on those elements that comprise effective and ineffective provision, and to comment on how coach education might be designed to better facilitate their development, were therefore identified as worthwhile approaches. Again, however, it was discovered that studies of this nature were conducted exclusively in Canada and the United States. So it was highlighted that the perceptions and experiences of UK coaching practitioners have yet to be explored in detail. While these studies were found to have elicited initial insight that could pave the way for more theoretical analysis, their findings were found to be largely descriptive. Mirroring the broader coach learning literature then, it was highlighted that the field has tended to lack theoretical depth of analysis. Researchers were resultantly urged to utilise theory that could help make sense of and frame the recommendations of coaching practitioners.

In summary then, there remains a paucity of research into the investigation of coach learning. Hence, our understanding about how coaches learn is extremely limited. Given the under-researched nature of this area of inquiry, much exploratory work needs to be completed to pave the way for investigations of greater sophistication. This research project aimed to contribute towards a growing



understanding about how coaches learn by addressing these issues. To achieve this goal, careful consideration needed to be given towards those methodological approaches that could collate information across a broad range of issues. It is to methodological considerations that focus now turns.

## **Chapter 3: Methodology**

### *Introduction*

Within this section, I present the methodology employed and the reasons behind the decisions made. The chapter opens with a reflexive account of how my previous experiences and understandings impacted on the research process. Focus then shifts to an exploration of ontological and epistemological viewpoints, with consideration being given towards how these ‘fit-in’ with literature that has addressed the paradigm debate. Having discussed the issue of “methodological appropriateness” (Patton, 2002, p. 72), I then outline the methods of data collection utilised within this investigation and the reasons for their selection. Means by which participant access was gained are then presented before providing details of those coaches that engaged within the study. This is followed by a detailed description of the procedures undertaken, which includes the explanation of both the data collection and analysis phases. The chapter concludes by outlining the criteria employed to evaluate the ‘quality’ of this research project, and by providing a discussion about the notion of ‘generalisability’ and its applicability to my findings.

### *3.1 Research Origins*

Researchers are according to Patton (2002) the primary instruments in qualitative inquiry. The quality of a project is therefore significantly influenced by the researcher’s ‘credibility’. Patton (2002) goes on to argue in light of this that, “a qualitative report should include some information about the researcher” (p. 566). I will as a result now present a reflexive account of how my past experiences have influenced my development as a researcher and what impact this has had on the research process.

As I reflect on ‘how’ and ‘why’ this study came about, it becomes increasingly apparent that the reasons were numerous, but nonetheless intertwined. The decision to apply for, and eventually accept, a doctoral position might appear a natural progression. It resulted from my completion of an undergraduate programme, which I shaped towards the study of applied physiology and coaching, and a Masters degree in sports coaching. While I enjoyed the academic study of sport science, each consecutive stage was born from a growing realisation that full-time positions in



performance environments were limited and difficult to access. Each step up the academic ladder was driven by a desire to know more, the hope that additional qualifications might help me break into the world of professional sport, and equally, if not more important, my not knowing where else to turn. So the decision to engage in a doctoral programme was seen as another means of gaining a qualification that might help me break through into a performance environment, while also opening up the possibility of remaining within the domain of sport through lecturing and researching. Indeed, I had become increasingly aware that academia could offer a viable career pathway.

While completing my undergraduate and postgraduate studies, I managed to secure a number of years practical part-time coaching experience, in both football and volleyball, with University teams. The vast majority of my understandings had, however, been acquired through the formal academic study of the sport sciences. A lot of what I learnt during these courses, on reflection, had limited practical application to the contexts in which I found myself coaching. The present study was therefore an opportunity to find out how those in the field, with considerably more practical experience than I, came to acquire their understandings. It presented a means of learning some valuable lessons from their developmental experiences. I anticipated that information about these topics could not only be used to guide my own future learning activities, but potentially inform my future practices as an educator. I can now see that my pursuit of this research area was thus to acquire knowledge that could inform my own personal development, while also preparing myself for a career pathway that was becoming increasingly likely (i.e., university based lecturing and researching). At this juncture, however, it should perhaps be pointed out that I finally experienced the world of professional sport, two thirds of the way through my doctoral studies, when acting as a full-time consultant to a leading supplier of performance analysis data in professional football. In this position, I worked closely with the performance analysts of elite British football clubs. So I now have the benefit of being able to relate and understand the complexities of high performance sporting environments much more intimately.

Although engaging *in* coach learning had been a primary full-time focus for the four years preceding the present study, my first investigation of this area occurred through the completion of a Masters degree dissertation project. Within this study, I specifically utilised qualitative research methods (i.e., in-depth interviews,



documentation review, and observation) to empirically evaluate whether an education programme, in the process of being developed, would likely promote reflection (Nelson & Cushion, 2006; see Appendix 2 p. 196). The dissertation project led to my giving considerable thought towards how coaches should be best taught. It made me reflect on how I learnt and the pedagogical approaches of those lecturers by whom I had been educated. I started to contemplate what methods I might employ if I were to become an educator. The Masters dissertation project also contributed towards my further appreciating the utility of qualitative research methods.

Prior to undertaking postgraduate study, my education had almost exclusively focused on exploring the findings of bio-scientific research and considering their application to practice. The positivistic orientation of the undergraduate programme I completed significantly impacted on my understanding of scientific research, appreciation of methodological issues, and my academic interests at that period of time. My having completed a positivistic undergraduate dissertation project investigating the impact of aerobic capacity on repeated sprint ability evidences this. It was not until the postgraduate level that I started to explore the findings of qualitative research, and study qualitative research methods, in any depth.

While formulating an appropriate methodology to address the research questions of my Masters dissertation project, I began to consider how the concepts of ontology and epistemology influence design choices. The project was also tied into the research methods module of the Masters programme. I tailored my assignments towards studying the theory and application of qualitative research methods. During this period I read the work of Patton (2002) and found myself in agreement with, drawn towards, and influenced by, many of his pragmatic beliefs. I was particularly taken by his notion of “methodological appropriateness” (p. 72). Patton’s (2002) writings appealed to me because they seemingly aligned with my own experiences. Throughout my formal education I had, for example, read research articles demonstrating the effective utility of both quantitative and qualitative research methods. Applying an appropriate method to the research question seemed to be the issue of greatest importance. Upon returning to Patton’s (2002) work, in preparation for writing this chapter, I find myself in agreement once again with many of his propositions and recognise that he has impacted on my understandings.

At the end of the Masters dissertation project I had many unanswered questions remaining. It was apparent from my having reviewed the literature that



much of what coaches knew had been acquired outside of the educational system and that early research was beginning to suggest that coaches viewed their formal education experiences somewhat negatively (Gilbert & Trudel, 1999; Gould et al., 1990; Irwin et al., 2004; Jones et al., 2003; 2004; Schempp et al., 1998). I became increasingly intrigued by this topic and wanted to learn more about how coaches learned ‘organically’ and how coach education could in the opinion of practitioners be best improved. Even further questions arose when expanding my reading to the adult learning literature (e.g., Jarvis, 2004; Merriam & Caffarella, 1999). As a result of these experiences and inquiries, the following research questions were formulated:

1. What areas of knowledge do coaches draw on?
2. Through what avenues do coaches acquire this information?
3. What motivates coaches to engage in ongoing professional development?
4. What barriers, if any, refrain coaches’ engagement in coach learning?
5. What factors do coaches perceive as contributing towards effective and ineffective coach education?
6. How do coaches fund their developmental exercises?
7. What implications might learnings from the above have for the practices of coach educators?

Having identified the above areas of interest, I then needed to establish which methods of data collection and analysis could help elicit answers to these research questions. Before outlining the specific methodological strategies employed, however, it would seem important that I first speak a little about the ‘paradigm debate’ (Sparkes, 1992). It has been suggested that, “the quality of research is enhanced if researchers engage with philosophical and methodological debate” (Seale, 1999, p. 8). An appreciation of these factors can help a researcher in selecting a design that will most appropriately answer their research questions (Gratton & Jones, 2004). So it is to the discussion of research paradigms that I will now turn.

### 3.2 *Research Paradigm*

A paradigm is a “worldview” and more specifically, “a way of thinking about and making sense of the complexities of the world” (Patton, 2002, p. 69). Central to the paradigm debate are assumption about ontology and epistemology. Lincoln and Guba (2000) explain that, “ontology raises basic questions about the nature of reality and the nature of the human being in the world” (p. 157). Ontology is comprised of two diametrically opposed positions known as ‘realism’ and ‘relativism’. Whereas the former maintains that the world is made up of structures and objects with cause-effect relationships, the latter rejects propositions of the world being orderly and law-bound, emphasising instead the diversity of interpretation (Willig, 2001). From an ontological perspective, researchers are faced with the following deliberations:

...whether the ‘reality’ to be investigated is external to the individual -imposing itself on the individual from without- or the product of individual consciousness; whether ‘reality’ is of an objective nature, or the product of individual cognition; whether ‘reality’ is out there in the world or the product of one’s mind (Burrell & Morgan, 1992, p. 3).

Linked to the issue of ontology is epistemology, which is a branch of philosophy relating to the nature of knowledge and how understanding is developed (Gratton & Jones, 2004; Sparkes, 1992; Willig, 2001). Epistemology is comprised of two opposing positions, namely ‘objectivism’ and ‘subjectivism’. The former assumes that reality exists independently from consciousness and the latter holds that existence depends solely on subjective awareness. Epistemology, then, is fundamentally about whether “knowledge is something that can be acquired on the one hand, or something which has to be personally experienced on the other” (Burrell & Morgan, 1992, p. 2). It has been suggested that an exploration of these issues is essential as they significantly shape how one goes about the process of researching:

...ontological assumption give rise to epistemological assumptions; these, in turn, give rise to methodological considerations; and these, in turn, give rise to issues of instrumentation and data collection. This view moves us beyond regarding research methods as simply



a technical exercise; it recognizes that research is concerned with understanding the world and that this is information by how we view our world(s), what we take understanding to be, and what we see as the purposes of understanding (Cohen, Manion, & Morrison, 2000, p 3).

Gratton and Jones (2004) have identified two distinguishable research paradigms within the domain of sport, namely positivism and interpretivism, both of which have their own basic beliefs about ontology, epistemology, and methodology. Positivism subscribes to a realist ontology and objectivist epistemology, while preferring a nomothetic methodology and traditionally employing quantitative methods. Ontologically, positivism postulates that, “the social world external to the individual cognition is a real world made up of hard, tangible and relatively immutable facts that can be observed, measured and known for what they really are” (Sparkes, 1992, p. 20). Epistemologically, positivism implies that, “the goal of research is to produce objective knowledge; that is, understanding that is impartial and unbiased, based on a view from ‘the outside’, without personal involvement or vested interest on the part of the researcher” (Willig, 2001, p. 3). Within this paradigm, researchers test their hypotheses by controlling and manipulating relevant variables and employing precise measurements, data of which is subjected to statistical analysis, so that causal relationships can be identified (Gratton & Jones, 2004). Interpretivism, on the other hand, conforms to a totally different set of philosophical assumptions. Interpretivists adopt an idealist ontology, a subjectivist epistemology, and prefer a ideographic methodology, often through the utilisation of qualitative methods (Sparkes, 1992). In this respect, Burrell and Morgan (1979) argue that:

The interpretive paradigm is informed by a concern to understand the world as it is, to understand the fundamental nature of the social world at the level of subjective experience. It seeks explanation within the realm of individual consciousness and subjectivity, within the frame of reference of the participant as opposed to the observer of action...It sees the social world as an emergent social process which is created by the individuals concerned. Social

reality, insofar as it is recognized to have any existence outside of the consciousness of any single individual, is regarded as being little more than a network of assumptions and inter-subjectively shared meanings...Interpretive philosophers and sociologists seek to understand the very basis and source of social reality. They often delve into the depths of human consciousness and subjectivity in their quest for the fundamental meanings which underlay social life. (pp. 28-31)

With positivists traditionally employing 'quantitative' and interpretivists 'qualitative' approaches, the paradigm debate has also expanded to the application of research methods (Bryman, 1999; Hammersley, 1995). The appropriateness of this divide has, however, been brought to question. While these terms are often used interchangeably, it should be noted that 'method' and 'methodology' actually refer to two entirely separate aspects (Willig, 2001). According to Silverman (2006), the term 'methodology' describes a general approach to studying a research topic, whereas 'method' refers to a special research technique. This would appear an important distinction as Willig (2001) has argued that a methodology is considerably more informed by the researcher's epistemological position than are methods. Indeed, both Bryman (1999) and Hammersley (1995) have both come to question the link between epistemology and methods of data collection. Hammersley (1995), for example, argues that a considerable amount of diversity exists between the dominant paradigms of quantitative and qualitative research. In recognition of the diverse approaches it is possible for researchers to employ, Hammersley suggests that this simple dichotomy is in reality of limited value. Bryman (1999), on the other hand, argues that the tendency among many writers to refer to quantitative and qualitative research as 'paradigms' has served to demonstrate that they are frequently, and incorrectly in his view, conceived of as being mutually exclusive models that reflect different epistemological positions. He goes on to stress that methods are much more autonomous than many researchers have recognised, with the connection between data collection and epistemology being questionable. In light of this, Bryman (1999) has suggested that technical issues should be given greater levels of importance. Notwithstanding these propositions, when looking through the philosophical lens of ontology and epistemology, I find myself agreeing with Willig (2001) who suggests



that, “not *all* research methods are compatible with *all* methodologies. Even though there is some flexibility in relation to our choices of methods, a researcher’s epistemological and methodological commitments do constrain which methods can be used” (p. 8).

While the exploration of ontology and epistemology is undoubtedly important, and intellectually intriguing, as I wrestle with these concepts I cannot help but find them methodologically limiting. I suspect that this frustration largely stems from my being as Patton (2002) suggests a pragmatist at heart. As such, I cannot avoid the appeal of his having proposed “methodological appropriateness” (p. 72) as the primary criterion for making research decisions. The research questions posed in the present study related to my wanting to have a greater understanding of the experiences and opinions of coaches as learners. A qualitatively based methodology was therefore identified as being the most appropriate means of eliciting answers to the questions posed. The methodology employed was as a result specifically selected to accomplish the objectives of the study by striving to answer its research questions. Upon returning to the paradigm debate, I resultantly concur with Patton’s (2002) argument that:

While a paradigm offers a coherent worldview, an anchor of stability and certainty in the real world sea of chaos, operating narrowly within any singular paradigm can be quite limiting. As a pragmatist, I take issue as much with the purist, one-sided advocacy of Lincoln and Guba (1985), who believe that naturalistic inquiry is the only valid and meaningful way to study human beings, as I do with the narrow, intolerant stance of Boruch and Rindskopf (1984), who assert that randomized experiments are “the standard against which other designs for impact evaluation are judged” (p. 21). My pragmatic stance aims to supersede one-sided paradigm allegiance by increasing the concrete and practical methodological options available to researchers and evaluators. Such pragmatism means judging the quality of a study by its intended purposes, available resources, procedures followed, and results obtained, all within a particular context and for a specific audience (pp. 71-72).

I have also found myself in agreement with Gratton and Jones (2004) who write that, “It is relatively easy to become immersed within the complex issues of ontology and epistemology. In reality, the key question to ask is what approach will best suit my research?” (p. 28). A qualitative methodology was utilised in my study because it was deemed the most appropriate means of eliciting an understanding of the how the coaches’ acquired knowledge of practice and their perceptions about how coach education provision might be best enhanced. While the approaches employed were primarily selected as a result of methodological appropriateness, it is through reading Patton’s (2002) work that I have also come to appreciate that, “the paradigm debate is part of our methodological heritage and knowing a bit about it, and its distortions, may deepen appreciation for the importance of a strategic approach to methods decision making” (p. 69). Having presented a discussion about research paradigms, I will now outline the methods employed in this investigation.

### *3.3 Methodological Choices: Interviews & Questionnaires*

In accordance with Patton’s (2002) notion of methodological appropriateness, the data collection methods utilised within this study were pragmatically selected to elicit answers to my research questions. The combining of interviews (i.e., with a modest number of coaches) and open-ended questionnaires (i.e., with a larger sample population) was deemed appropriate, as comparable research had already successfully utilised this approach within the domain of physical education (Armour & Yelling, 2002; 2004a; 2004b). Further inquiry also confirmed the value of these methods.

It has been suggested that interviews have become the ‘gold standard’ approach “against which other data are frequently compared and found wanting” (Barbour, 2008, p. 238). Interviews are a method that allow researchers to explore the ‘how’ and ‘why’ of the phenomenon under investigation (Gratton & Jones, 2004). Interviews were deemed appropriate for a number of reasons, including that they: (1) were able to collate data relevant to my research questions; (2) are useful when the research is focused towards gaining individuals thoughts about a specific topic (Hesse-Biber & Leavy, 2006); (3) are particularly effective when the study is striving to understand areas about which little is known (Gratton & Jones, 2004); and (4) had already been widely employed within the domain of coach learning (e.g., Bloom et al., 1995, 1998; Jones et al., 2003, 2004; Salmela, 1995; Schempp et al., 1998).



I specifically wanted to discover more about how these coaches acquired understanding of practice, their thoughts about those experiences they had engaged, factors that had driven and inhibited ongoing professional learning, how learning endeavours had been typically funded, and their recommendations for the future delivery of coach education. As Patton (2002) clearly stated, “The fact is we cannot observe everything” (p. 340). In this respect, he has suggested that, “We cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous point in time” (p. 340). Interviews, then, offered a legitimate means of gathering information about the coaches’ learning experiences and perceptions about how coach education could possibly be enhanced. They presented a means of gathering understanding and observing patterns that could emerge from the descriptions recounted by the participant coaches. It was acknowledged that interviews would present an environment in which the researcher could, “learn about social life through the perspectives, experience, and language of those living in it”, by allowing respondents to, “share their story, pass on their knowledge, and provide their own perspective on a range of topics” (Hesse-Biber & Leavy, 2006, p. 128).

Despite being frequently employed within the coach learning literature, like all methods of data collection, the interview process has certain limitations. Arguably the greatest limitation is that researchers are reliant on their respondents providing accurate and complete answers to the questions posed (Breakwell, 2006). Interviewees are, however, subject to recall error and might purposely present distorted responses in some instances (Patton, 2002). Some participants may, for instance, have thought that exaggerating the amount of coach learning that they have completed would reflect more positively. Given the historical nature of the inquiry being undertaken, it was not possible to check responses against observations through methodological triangulation. Instead, coaches were asked to provide specific examples considered representative of the points being made. While it is unlikely that this technique was able to guarantee the accuracy of all responses, it was hoped that this would at least help to minimise distortions.

Survey questionnaires have become the most frequently used research tool within social science (Babbie, 1998; Berends, 2006; Fife-Schaw, 2006). This is perhaps unsurprising when acknowledging that this method is versatile in nature (Fife-Schaw, 2006); facilitates the collection of vast amount of data (Wilkinson & Birmingham, 2003); can be used for descriptive, and explanatory purposes (Babbie,



1998); and has proven to be an “invaluable source of data about attitudes, values, personal experiences and behaviour” (Simmons, 2001, p. 85). Questionnaires are a relatively inexpensive, but effective means of collecting large amounts of information from a specified sample that is geographically dispersed (Gratton & Jones, 2004; Williams, 2001). Indeed, surveys utilising open-ended questions had already been previously employed within coach learning investigations, the findings of which have usefully contributed towards current understanding (Gould et al., 1990; Schempp et al., 2007).

Interviewing is undoubtedly an appropriate way of acquiring rich data from a relatively small number of individuals. Once the desired sample reaches a certain size, however, Wilkinson and Birmingham (2003) have argued that this method becomes an increasingly inefficient means of collecting data. Questionnaires, on the other hand, allow for data to be collected from a comparably larger number of participants (Simmons, 2001). This has led to their being considered, “excellent vehicles for measuring attitudes and orientations in large populations” (Babbie, 1998, p. 256).

Questionnaires are reported as being the most frequently employed method in sports-related inquiry (Gratton & Jones, 2004). Much of the coaching research, however, has tended to utilise quantitative questionnaires conforming to the largely dominant positivistic tradition (Gilbert and Trudel, 2004a). While quantitative tools of this nature can be useful, and are able to elicit valuable findings, they have a tendency to focus on relationships between known variables. As was identified within the review of literature, there remain many unknowns within the investigation of coach learning (see the *Review of Literature* pp. 8-44). It seemed necessary therefore to draw on an approach that was able to elicit understanding about an area of which little is currently known. A questionnaire comprising of open-ended questions was resultantly deemed to be the most appropriate design, as open-ended questions were identified as a useful means of exploring new areas (Simmons, 2001). Further information about the questionnaire’s design, and details regarding its implementation, are presented later in the chapter (see the *Questionnaire Procedure* subheading p. 63).

While questionnaires have many associated benefits, this method of data collection also has some limitations that needed to be considered. By design, questionnaires do not allow for the probing of responses (Patton, 2002). This presented a possible limitation because written responses can at times be incomplete



or illegible (Simmons, 2001). While an inability to probe answers was recognised as an inherent weakness of this method, it was also acknowledged that other limitations are often the result of poor instrument design (Wilkinson & Birmingham, 2003). Further identified limitations included that: (1) participants can find questions misleading or ambiguous (Wilkinson & Birmingham, 2003); (2) there can be a disparity between what people say and what they actually do (May, 2001; Robson, 2002); (3) respondents can provide socially desirable answers because they like to portray themselves in a positive light (Fife-Schaw, 2006); (4) questions about past behaviours assumes an accurate recall of events (Fife-Schaw, 2006); and (5) open-ended questions are considered limiting because they are difficult and time consuming to code, analyse, and interpret (Fife-Schaw, 2006; Wilkinson & Birmingham, 2003). In an attempt to overcome the limitations of this research method, consideration was given towards the wording of questions and pilot studies were also conducted to limit ambiguity (see the *Questionnaire Procedure* subheading p. 63). Questions about how the coaches had acquired knowledge of practice required participants to list the specific educational endeavours they had attended and provide examples of their learning experiences. It was hoped that focusing on specific events would help to minimise the provision of socially desirable answers and recall error. It was acknowledged, however, that these limitations could not be totally nullified. I also accepted that while these data were likely to be messy, the time invested into gathering and analysing answers to open-ended questions outweighed the benefits of a more simplistic design (see the *Questionnaire Procedure* subheading p. 63). In summary, semi-structured interviews and open-ended questionnaires were identified as being appropriate means of gaining answers to my research questions. Having presented a rationale for the selected data collection methods, focus will not turn to how participant access was established.

### *3.4 Access: How Participants were Secured*

Gaining access to a large number of experienced coaches was never going to be easy as I had few contacts in professional sport. So I recognised that a substantial amount of time and effort would need to be given towards the acquisition of participants. In acknowledgement that National Governing Bodies (NGBs) are the gatekeepers to coaching communities, I focused my attention on developing strategies to secure their support.

Although it would have been possible to contact NGBs directly from the outset, I was aware that I might only have one opportunity at convincing each about the importance of their supporting this research project. So it seemed essential to take all measures possible to strengthen my case. It was anticipated that Sports Coach UK's supporting of the investigation would likely assist in getting NGBs 'on-board'. Sports Coach UK were approached and made aware of the project aims, proposed methodology, and perceived outcomes. In approval of the intended research, Sports Coach UK agreed to support the investigation by providing the contact details of employees, at five NGBs, who had shown an initial interest in the project.

Having secured the support of Sports Coach UK, I then obtained the contacted details for the heads of coaching development at the remaining NGBs. Each was sent an email about my intended project and asked whether their organisation would be willing to support the investigation. Two additional NGBs, to the five already identified by Sports Coach UK, indicated an interest. A total of seven NGBs agreed to assist the investigation by providing me with access to coaching practitioners. Coaches practicing in one additional sport were also secured through contacts provided by a colleague. Having described how I went about attempting to secure participants, I will now provide a broad overview of the coaches that took part in the study.

### *3.5 Participants*

A total of 90 UK coaches participated in this study (see Table 2.0 p. 58). 16 practitioners engaged in interviews and a further 74 completed the open-ended questionnaire. The design, data collection, and analysis of data gathered by both methods were completed simultaneously. The participant group comprised of coaches practising in eight sports (i.e., athletics, badminton, equestrianism, football, golf, rowing, rugby, and volleyball) and across a range of levels (i.e., practitioners working at the national, regional, club, university, college, and schools level). Due to the questionnaire's design, it was not possible to clearly identify the precise distribution. In-keeping with the questionnaire's open-ended format, coaches were asked to list their club, coaching job title, and key responsibilities. While this made it possible to identify the type of job that a large proportion the respondents held, it was not possible in all instances. Analysis of the data certainly demonstrated that coaches cannot be easily categorised under the titles of typologies such as that proposed by



Lyle (2002). All of the interviewees were coaching elite level performers. Analysis of the questionnaire responses revealed that approximately two-thirds of the participants were club coaches, with the remainder comprising of national level coaches, development officers, and coaches in other positions (e.g., school, college, and university level).

The participants had accumulated on average 23 years coaching experience, ranging from 3 to 50 years. Only seven coaches possessed less than 10 years coaching experience and one with below five years at the time of study. Male coaches accounted for 91% ( $n = 82$ ) of the participant group and female coaches 9% ( $n = 8$ ). This ratio supports the observation that coaching remains a largely male dominated activity (Sport Coach UK, 2004; Trudel & Gilbert, 2006). The participants could therefore be considered somewhat representative of the coaching community. Indeed, marginalised groups were not a focus of the present study. This is not to suggest that the investigation of those who are underrepresented within coaching would not elicit useful understanding. On the contrary, an analysis of whether class, gender, and race shape, for example, coaches' reasons for engaging in coach learning, and their experiencing of barriers that deter further participation, would appear necessary. However, the present investigation focused instead on gaining further understanding about coach learning by studying those that are known to actively engage in this process. Having presented an overview of the study's participants, a thorough description of the interview and questionnaire procedures will now be provided. It is to the conducting of interviews that I will now turn.

**Table 2.0 – A Breakdown of the Study's Participants**

Sports ( $n = 8$ )	Interviews	Questionnaires
Athletics	2	8(1)
Badminton	2	21(2)
Equestrianism	2	3(3)
Football	2	3
Golf	2	3
Rowing	2	0
Rugby	2	36(1)
Volleyball	2(1)	0
<b>Total</b>	<b>16(1)</b>	<b>74(7)</b>

\* The bracketed numbers indicate how many female participants contribute to each tally

### *3.6 Interview Procedure*

Interviews were conducted with 16 coaches (15 males and 1 female) from eight sports (see Table 2.0 p. 58) that were purposively selected (Patton, 2002) using criterion sampling (Miles & Huberman, 1994). A contact at each of the seven supporting NGBs was asked to provide the contact details of two coaches showing an initial interest in the study. A colleague working in an additional sport also identified two practitioners that were willing to participate. The criteria applied to the selection of participants stipulated that the practitioners had to be coaches of elite level performers, who had obtained their NGBs highest level of coaching certification. Consistent with previous coach learning investigations, the coaches were also required to have accumulated a minimum of 10 years coaching experience (Abraham et al., 2006; Bloom et al., 1998; Irwin et al., 2004; Salmela, 1995).

Criterion sampling was specifically employed to help ensure that those interviewed were information-rich cases that would yield insightful data relevant to understanding the phenomena under investigation (Creswell, 2007). The accumulation of 10 years coaching experience was made a minimum requirement because of its being considered the necessary period for developing coaching expertise (Côté, Salmela, Trudel, Baria, & Russel, 1995; Salmela, 1995). While it was hoped that this would help ensure that the participants had substantial coach learning experience on which to draw, it was also recognised that the simple accumulation of experience does not necessarily equate to ongoing learning (Bell, 1997; Cushion et al., 2003). The acquisition of their NGBs highest level of coaching certification was therefore made a requirement also. This was employed not only to ensure that the participants had engaged in the process of coach learning, demonstrated by a certified level of understanding and practical competency, but to guarantee that they also had educational experiences to reflect on. Coaches of elite level athletes were also selected because it has been suggested that they experience the coaching process at its most complex (Lyle, 2002). It was anticipated that coaches meeting these criteria would likely have accrued a diverse range of knowledge from a multitude of sources. This might explain why previous investigation into coach learning had primarily focused on this section of the coaching population (Gould et al., 1990; Irwin et al., 2004; Jones, 2003, 2004; Salmela, 1995; Schempp et al., 1995).

The participants under investigation had accumulated on average 23 years experience, which ranged from 10 to 34 years. The group comprised of national



coaches ( $n = 10$ ), regional coaches ( $n = 2$ ), professional club coaches ( $n = 2$ ), and consultants to a portfolio of elite athletes ( $n = 2$ ). For a full breakdown of the interview participants’ details please refer to Table 3.0 (p. 59). Each coach was initially contacted through an email informing them of the study’s purpose, methodology, and the importance attached to issues surrounding confidentiality. Follow-up emails and telephone calls were made where necessary. All of the coaches that were approached agreed to take part in the study and gave their informed consent via email or verbally during a telephone conversation. Each interview commenced with my describing the study’s purpose, highlighting that they could withdraw at any point, and stressing the importance that I attach to maintaining their anonymity. All participants once again verbally provided their informed consent.

Table 3.0 – A Breakdown of the Interview Participants’ Details			
Sport ( $n = 8$ )	Gender	Coaching Exp. (Years)	Coaching Position
Athletics	M	30	Regional coach
Athletics	M	10	Regional coach
Badminton	M	20	National coach
Badminton	M	22	National coach
Equestrianism	M	31	National coach
Equestrianism	M	25	Portfolio of pro riders
Football	M	34	National coach
Football	M	18	Pro club academy coach
Golf	M	29	National coach
Golf	M	32	Portfolio of pro golfers
Rowing	M	14	National coach
Rowing	M	30	National coach
Rugby	M	16	Pro club coach
Rugby	M	10	National coach
Volleyball	F	23	National coach
Volleyball	M	27	National coach
Mean		23	

All 16 coaches were individually interviewed with sessions lasting 69 minutes on average (ranging between 38 and 122 minutes). Interviews took place at a location and time convenient for each participant. Eleven of the 16 interviews were held at the coaches’ location of work. Three were conducted in a university office. Two interviews were completed at coaches’ home residences. Consistent with previous coach learning research, interviews were semi-structured in nature with an interview guide (see Appendix 3 p. 207) employed throughout (Cassidy et al., 2006; Irwin et al.,

2004; Potrac, Jones, & Armour, 2002). Interviews opened with a set of general questions pertaining to the participants' demographics. This elicited important information and also served to encourage the coaches to talk descriptively in the presence of the interviewer and a tape recorder (Irwin et al., 2004). Interviews then progressed to the exploration of issues surrounding: (1) typical responsibilities and what knowledge is required to engage in these activities; (2) sources of coaching knowledge; (3) perceptions and experiences of coach education provision; (4) the funding of learning activities; (5) motivations and barriers to coach learning; and (6) means of enhancing the impact of coach education. While this was typically the order in which topics were explored, deviations occasionally occurred as a result of each interview's natural flow.

The interview guide was informed by relevant literature. Questions focusing on coaching knowledge and its acquisition were, for example, incorporated to build on existing understanding (Gould et al., 1990; Irwin et al., 2004; Jones et al., 2003, 2004; Salmela, 1995; Schempp et al., 1998). Questions about coach learning motives and deterrents were developed in acknowledgment that while these issues had been explored within the adult learning literature (Cross, 1981; Jarvis, 2004; Merriam & Caffarella, 1999), they had been given little consideration in coaching (Sports Coach UK, 2004). Asking coaches to comment on their educational experiences, and thoughts about enhancing its provision, were driven by research demonstrating that practitioners often perceived coach education to be far from optimal (Gilbert & Trudel, 1999; Irwin et al., 2004; Jones et al., 2003, 2004). These questions were also guided by studies that had already started to investigate this area of inquiry (Bloom et al., 1995; Gould et al., 1990; Salmela, 1995).

The interview guide collectively allowed for the covering of important topics relating to the research questions previously identified. It also presented, "plenty of freedom of movement in the formulation of questions, follow-up strategies and sequencing" (Hopf, 2004, p. 204). While flexibility to explore topics as they arose was deemed important, a level of structure and consistency of questioning was also considered necessary as this facilitates the aggregation and comparison of data obtained between interviews (Barbour, 2008). Indeed, the interview guide: "helps make interviewing a number of different people more systematic and comprehensive by delimiting in advance the issues to be explored" (Patton, 2002, p. 344). I found that the interview guide also allowed me to concentrate on what the interviewees were



saying, without getting sidetracked by thoughts surrounding what issues had or had not been covered. Having a copy of the interview guide 'to hand' enabled me to mark off topics as they were discussed.

Questions were of an open-ended nature, which allowed the respondents to answer in a manner that they deemed most relevant and appropriate to their experiences. I was conscious of not wanting to lead the interviewee in any preferred direction. The types of questions asked could be broadly categorised under what Patton (2002) has labelled as "background" (p. 351) questions (e.g., gaining the coaches demographics), "experience and behaviour" (p. 349) questions (e.g., when exploring those learning activities that the coach had engaged), and "opinions and values" (p. 350) questions (e.g., asking the coaches for their perceptions about how the provision of coach education could be enhanced). According to Cohen et al. (2000) open-ended questions have many benefits including that they help establish a rapport with the interviewee; allow the interviewer to glean a truer assessment of what the interviewee really believes; facilitate the discovery of unexpected answers; and allow the researcher to probe for further information and understanding. "Elaboration probes" were employed, where necessary, to elicit clear and comprehensive descriptions (Gratton & Jones, 2004, p. 147). Coaches were also asked to identify specific examples in support of the point they were attempting to convey. It was hoped that this would help ensure the authenticity of the participants' responses.

Upon reflection, my interview technique was similar to that described by Patton (2002) who has stressed the importance of not undermining his 'neutrality' concerning what an interviewee tells him. Neutrality in this context meaning that, "the person being interviewed can tell me anything without engendering either my favor or disfavor with regard to the content of her or his response" (p. 365). While I recognised that researchers are unable to detach from their thoughts, beliefs, and feelings (Hesse-Biber & Leavy, 2006), I purposely sought to understand each interviewee's descriptions from their internal frame of reference (Fontana & Frey, 1998). At no point did I express my own thoughts and experiences about the points being discussed. My focus, instead, was on trying to understand what the coach was telling me from his or her perspective. I strove to convey a genuine interest in what the participants had to say, so they would become aware that their views were considered valuable and insightful (Cohen et al., 2000; Marshall & Rossman, 2006). This was achieved by employing what Brenner (2006) terms "encouragement probes"

(p. 364). I emphasised body signs of verbal tracking through nodding and words of positive reinforcement. Clarification probes were also employed throughout the interviews. This was achieved by summarising what I understood the coach to be conveying. These summaries allowed the interviewees to confirm, correct, or build on my interpretations (Gratton & Jones, 2004). As I reflect on the interviews conducted, I feel content with how the large majority transpired. I am also confident that neutrality was established in most instances. While analysing the transcriptions, there were understandably instances where I could have potentially further probed certain issues, which would have helped to clarify specific points and may have aided the development of understanding. This process served to remind me that there are elements of my interviewing technique that I can work on further improving.

All of the interviews were audiotape recorded and then transcribed verbatim to ensure that a complete and accurate record was obtained (Poland, 1999). 460 single lined spaced typed pages were yielded in total. Audiotapes were stored in a locked draw of a secure location at all times. Electronically transcribed documents were saved in a password-protected folder on the hard-drive of a personal computer. All records were destroyed once the analysis process has been completed. Having outlined the interview process, I will now describe the procedures involved in the collection of questionnaire data.

### *3.7 Questionnaire Procedure*

An open-ended questionnaire design was implemented in acknowledgment that this approach would impose none of the restrictions presented by closed or multiple-choice questions (Wilkinson & Birmingham, 2003). This design was seen as a means of allowing coaches to present a personal account of their specific experiences, beliefs, and recommendations. It was recognised, however, that open-ended questionnaires are often time consuming to complete and difficult for researchers to analyse (Simmons, 2001; Wilkinson & Birmingham, 2003). Despite these negative aspects, it was decided that the pursuit of rich and detailed data, that would be messy in nature and difficult to secure, far outweighed the benefits of a more restrictive instrument.

The questionnaire comprised of a short opening section focusing on the respondent's demographics, before posing open-ended questions based around the same broad areas already identified within the interview guide (see Appendix 4 p.



209). Both the questionnaire and interview guide were simultaneously designed to ensure that each method complimented one another in eliciting answers to the identified research questions. In-line with the recommendations of survey design texts (Cohen et al., 2000; Simmons, 2001; Wilkinson & Birmingham, 2003), the questionnaire was of an A4 size and fell within the advised six page limit (the questionnaire being six pages in length when including the cover letter); grouped questions and presented them in a logical order, ensuring that items were never split over pages; avoided the inclusion of leading questions; and ended with a note expressing appreciation for the respondents assistance.

Having compiled a first draft questionnaire, a pilot study was then conducted to check that its wording and sequencing were clear, logical, and unambiguous (Gratton & Jones, 2004; Simmons, 2001). A small group of colleagues looked over the questionnaire with a 'fresh set of eyes' (Wilkinson & Birmingham, 2003), in acknowledgement that mistakes and ambiguities are easily overlooked when designing a survey (Wilkinson & Birmingham, 2003). Feedback from the pilot study helped clarify the phrasing of questions. Following this initial trial, a further and more comprehensive pilot was conducted with respondents drawn from the target sample (Cohen et al., 2000).

A contact at one of the NGBs was approached and asked whether their organisation would be willing to participate at the pilot stage. The contact agreed, but stressed that the NGB would have to be responsible for the sending out of questionnaires. Data protection laws meant that the NGB were not permitted to disclose the details of coaches on their register. 121 sealed envelopes, each containing a copy of the questionnaire and a pre-paid self-addressed envelope for returns, were given to the NGB. Each was then sent to coaches possessing a level two coaching award or above. The dates that questionnaires were sent out by the NGB, and received by myself, were both recorded. This allowed response rates to be calculated. A total of 21 (17% response rate) out of a possible 121 questionnaires were received typically 17 days following their delivery. Although this might at first appear a relatively low return ratio, Gratton and Jones (2004) remind us that postal questionnaire response rates are notoriously low and can be as little as five percent. A response rate of 17% was considered fairly reasonable, especially when acknowledging that the inclusion of open-ended questions is often negatively associated with the frequency of returns (Cohen et al., 2000).



Upon receiving and reviewing the pilot study responses, the following alterations were made: (1) having taken a step away from the questionnaire, it became apparent that the final two questions (i.e., relating to coaching activities and knowledge needed to fulfil these roles) would in fact be more logically placed at the start of the questionnaire; (2) one question, relating to the respondents' learning activities and their reasons for engagement, was split into two distinct questions, in recognition that double-barrelled questions should be avoided (Gratten & Jones, 2004); (3) despite my having provided participants with a working definition of CPD on the covering sheet, a very small proportion of responses hinted that this abbreviation may have caused confusion. To avoid any future ambiguity, all references to CPD were replaced by the term "professional development"; and (4) signposts to previous questions were added, as a precaution, to remind participants of the learning activities they were required to expand on through the provision of more specific examples (e.g., when asked to reflect upon those learning activities listed in previous questions that were perceived as being particularly effective or ineffective). Because these adjustments were largely cosmetic, data collected during the pilot study were incorporated into the main study.

Having tested the questionnaire's ability to gather data that could usefully answer the research questions, all remaining NGBs were contacted about initialising this phase of the research project. Issues surrounding data protection meant that NGBs were less responsive than I had originally hoped. This issue meant that the NGBs would have to invest resources into the sending out of questionnaires. In reaction to this problem, I created an Internet based version of the questionnaire using the services of an online survey provider ([www.freeonlinesurveys.com](http://www.freeonlinesurveys.com)). This allowed the questionnaire to be remotely accessed through a dedicated URL. Each of the remaining NGBs were emailed a Microsoft Word document containing the questionnaire with a covering letter tailored to their sport; a URL link to an online version of the questionnaire; the offering of paper copies and pre-paid addressed envelopes to be supplied on demand; and a request asking that they distribute these to all coaches on their register that had at least acquired their level two coaching award.

Questionnaire participants were also purposively targeted (Patton, 2002) through the application of criterion sampling (Miles & Huberman, 1994). While 10 years coaching experience and a level 2 coaching award were originally set as the minimum criteria, the number of required years coaching experience was reduced to



five years following the review of pilot study responses. Questionnaires received during the pilot study confirmed that coaches possessing between 5-10 years experience also presented valuable data. So consistent with other previous coach learning investigations (Gilbert & Trudel, 2001; Lemyre et al., 2007; Vargas-Tonsing, 2007; Wiersma & Sherman, 2005; Wright et al., 2007) the present study's sample included practitioners possessing less than 10 years of practical coaching experience. A level two coaching award and five years coaching experience were the minimum required criteria employed. These were implemented to help ensure that respondents had valuable coach learning and coach education experiences on which to draw.

It should be stressed at this point that I was largely dependent on the NGBs co-operation and had to conform to whatever method of distribution they ultimately decided. Two sports sent postal questionnaires (this includes the pilot), three sports placed a link onto their website, and the coaches of three sports were contacted via group emails. Due to the range of distribution methods employed by the NGBs, it was impossible for me to record the overall response rate. There was, for example, no means of knowing how many hits the questionnaire received online. Confirmation regarding the number of individuals included on group emails was never received. 300 printed questionnaires, along with pre-paid self-addressed return envelopes, were, however, requested by one sport, which allowed a response rate to be calculated. Analysis of the responses demonstrated that 12% of these were returned. While it was not possible to calculate an overall response rate, analysis of these data revealed that 77% ( $n = 57$ ) of the completed returns were postal questionnaire responses, 12% ( $n = 9$ ) were in reply to group emails, and 11% ( $n = 8$ ) resulted from website links. So postal returns, from coaches practicing in two sports, accounted for a large proportion (i.e., 77%) of all the questionnaire responses.

A total of 74 coaches (67 male and 7 females) from six sports completed the questionnaire (see Table 2.0 p. 58). They had on average 23 years coaching experience, ranging from 3 to 50, and included coaches in many different positions (e.g., national, regional, club, university, college, and school level coaching). Although the criteria had originally been set at a minimum of five years coaching experience, a coach with three years was included because of his having completed a Masters degree in coaching presented valuable data. All questionnaires were accompanied by a covering letter describing the study's purpose and stressing the importance attached to anonymity. Completed responses were resultantly considered

illustrative of informed consent. Questionnaires returned via post were stored in a locked draw of a secure location at all times. Responses received through the online version were only accessible through a secured account. Electronically completed returns were saved in a password-protected folder on the hard-drive of a personal computer. All records were destroyed once the analysis process had been completed. Having described the data collection process, I will now discuss how the interview and questionnaire responses were collectively analysed.

### 3.8 Data Analysis

Both the interview and questionnaire data were collectively subjected to inductive content analysis (Patton, 2002). The analysis process of the present study was, therefore, consistent with previous coach learning investigations (Bloom et al., 1998; Irwin et al., 2004; Knowles et al., 2006; McCullick et al., 2005; Wiersma & Sherman, 2005). Each questionnaire answer was treated as a standalone meaning unit. Answers containing two or more key points were subdivided into multiple references. Analysis of the interview data required the reading of transcripts in order to identify relevant meaning units. In the following example the *italics* delineate a meaning unit taken from a transcript excerpt:

First and foremost, have a clear transparent pathway. I don't think there is one. I think, I think, you know, there is a big bubble in the middle who get fast tracked. They (i.e., those who are not elite performance coaches) get to level three and then these *coaches can't get from level three to level four because it becomes very selective and X gets picked and not Y. Well why is that? Is that a really clear transparent pathway? I think having a much more accessible coaching programme where there are regular courses [is required]*. My wife is a professional tennis coach and she has to go on courses, they get credits, and she has to go on three or four courses a year. (C84)

Each of the meaning units was then analysed. Quotes containing comparable information were grouped into lower order themes. 64 lower order themes were established in total from the 1,768 identified meaning units. The meaning unit quoted in the above example contributed towards the *Restricted Course Access* lower order theme, with a further eight meaning units:

Shortage of level 4 course places. (C1)



The level 4 & 5 course has so few spaces and I feel that the target group is for those involved with the game on a professional basis? (C13)

Occasional paucity of what courses are on offer. (C42)

I have been a level 3 coach since 2003. I have been unsuccessful in 3 attempts of applying for level 4. I have received poor feedback and no pathway for entry. (C46)

Not all the best coaches are ex-players and the continual favouritism of [our sport's NGB] for the in-crowd, especially at level 4, is appalling! (C47)

Yes, [our sport's NGB] level 4 coaching award has had restricted entry criteria, based on coaching level regardless of the coach being capable at that level. (C54)

Yes – the Level 4 coaching award has been unavailable for many years. It is now only available to a favoured few. (C60)

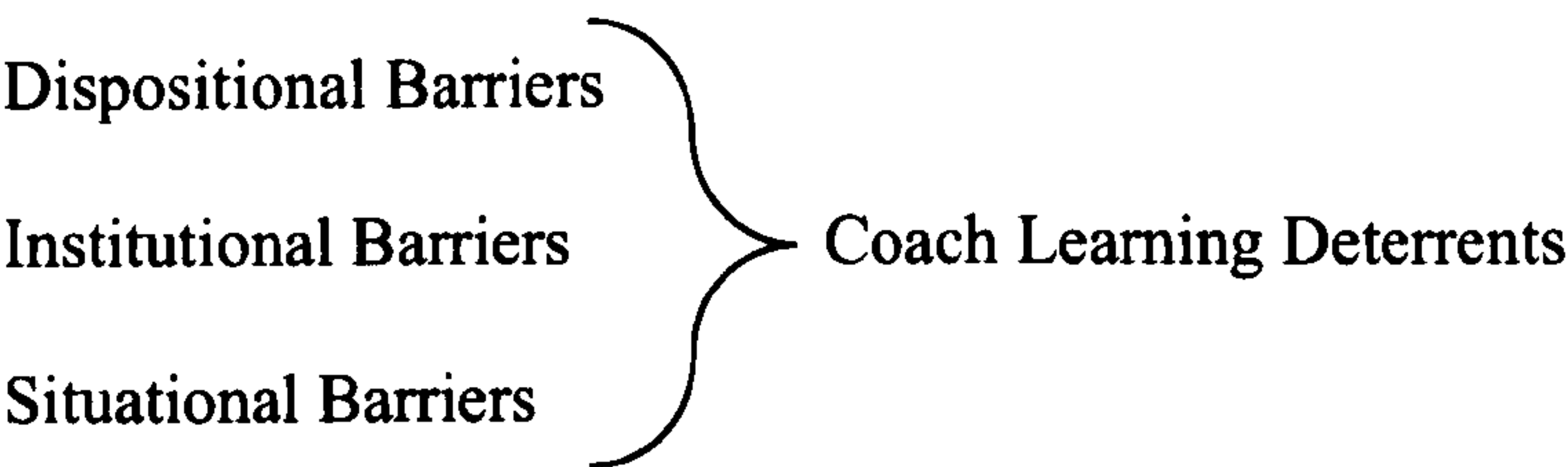
Other barriers, in some ways, are opportunities. Take the Australian congress. They happen every year. But I only went to two of them over a four-year period. Although I would have been quite happy going to all of them, there's a range of coaches who needed that experience. (C88)

Particular attention was given to ensuring that each category was distinct, by constantly comparing the contents of each theme. In a similar process, lower order themes were then compared and contrasted to form higher order themes. 16 higher order themes were created in total.

When grouping the lower order themes into higher order themes, I returned to, re-reviewed, and extended my reading of, relevant literature in light of these findings. This process was completed in an attempt to identify theoretical 'hooks' that could help inform the analysis process. While the analysis process was inductive in nature, I did not want to 'reinvent the wheel' by ignoring the findings of previous research. The following were identified as being able to usefully make sense of these data and inform the analysis process by providing conceptual labels for the inductively grouped themes: (1) Coombs and Ahmed's (1974) typology of learning situations (i.e., formal, nonformal, and informal); (2) Abraham et al.'s (2006) categories of coaching knowledge (i.e., ologies, pedagogy, and sport specific); (3) Knowles et al.'s (2005a) distinction between internal and external adult learning motives; and (4)

Cross’s (1981) barriers to learning (i.e., situational, institutional, and dispositional). Only minor alterations were made to the inductively established groups to ensure that they aligned with the identified frameworks.

The *Restricted Course Access* lower order theme was, for example, grouped with a second lower order theme (i.e., *Geographic Location*) to establish a higher order theme titled *Institutional Barriers*. Two additional higher order themes (i.e., *Dispositional* and *Situational Barriers*) informed by Cross’s (1981) typology were also established. These three higher order themes collectively comprised the *Coach Learning Deterrents* general dimension:



A total of six general dimensions were established from the 16 higher order themes. For a full breakdown of the analysed data please refer to Table 4.0 (pp. 69-70). All electronic records containing the analysed data were stored in a password-protected folder on a hard-drive of a personal computer. Having described how these data were analysed, the notion of research quality will now be discussed.

### 3.9 Research Quality

Criteria against which I came to evaluate the quality of my study are presented in this section. A discussion of this topic is included as, “all research must respond to canons of quality – criteria against which the trustworthiness of the project can be evaluated” (Marshall & Rossman, 2006, p. 200). It was hoped that an exploration of this topic would assist readers in constructing their own judgements about the ‘scientific soundness’ of the approaches employed and results presented. Establishing the quality of a qualitative investigation is, however, not easily achieved, as standardised evaluation criteria remain elusive (Corbin & Strauss, 2008; Flick, 2006). Rather, it has been suggested, criteria for evaluating an investigation should be tailored to the qualitative inquiry in question (Marshall & Rossman, 2006; Willig, 2001).



Table 4.0 – An Overview of the Analysed Data Themes			
Example Excerpts from Meaning Units (MU's)	Lower Order Themes ( <i>n</i> = 64)	Higher Order Themes ( <i>n</i> = 16)	General Dimensions ( <i>n</i> = 6)
<p>“Many coaches think they know it all and are not open to new ideas” (C36)</p> <p>“Location of courses [can be a barrier]” (C64)</p> <p>“I have been unsuccessful in 3 attempts of applying for level 4” (C46)</p> <p>“None (i.e., barriers) that I am aware of” (C48)</p> <p>“...if I go away for a day I don't get paid that day” (C82)</p> <p>“Working for a living...I can't necessarily get the time off work” (C86)</p> <p>“During the season time is something of a barrier” (C44)</p> <p>“[Paid] by the university I worked at” (C58)</p> <p>“Sometimes [paid] by the club, though we're not very well off” (C24)</p> <p>“[Funded by the] district council” (C32)</p> <p>“Occasionally funded by my NGB” (C8)</p> <p>“Now paid for by SCUk” (C28)</p> <p>“Self - at increasingly enormous cost. Someone's making a packet” (C43)</p> <p>“To gain qualifications to allow employment opportunities” (C15)</p> <p>“To keep my license current” (C59)</p> <p>“...to try and afford my players a winning edge” (C1)</p> <p>“To fulfil my role to its potential as a coach” (C37)</p> <p>“To make sure that I am up to date with current coaching trends” (C19)</p> <p>“To interact with colleagues” (C59)</p> <p>“To enhance my ability to help the athletes in my care” (C41)</p> <p>“I find it (learning) very stimulating from a personal point of view” (C82)</p> <p>“MSc Sport Coaching, 2000, 3 yrs, Brunel University” (C46)</p> <p>“I have just finished a 2 year mentoring experience with the RFU” (C55)</p> <p>“Emergency first aid [course], 2003, 1 day, Lincoln” (C31)</p> <p>“RFU Level 3, September 1997, 5 days” (C21)</p> <p>“Training to be an RFU level 2 assessor, 2003, 1 weekend” (C44)</p> <p>“Talking to players about their needs and differences in learning” (C12)</p> <p>“I've learned an awful lot about the game through self-learning” (C90)</p> <p>“Years of practical experience for which there is no substitute” (C35)</p> <p>“I like to watch DVD's. You learn better visually than reading about it” (C75)</p> <p>“Private consultations with physio's and bio-mechanists” (C74)</p>	<p>Being Closed Minded (8 MU's)</p> <p>Geographic Location (3 MU's)</p> <p>Restricted Course Access (9 MU's)</p> <p>No Barriers (7 MU's)</p> <p>Money (24 MU's)</p> <p>Other Career (9 MU's)</p> <p>Time (37 MU's)</p> <p>Academic Department (9 MU's)</p> <p>Club (14 MU's)</p> <p>Local Council (4 MU's)</p> <p>National Governing Body (21 MU's)</p> <p>Sports Coach UK (2 MU's)</p> <p>Self-funded (64 MU's)</p> <p>Career Development (5 MU's)</p> <p>Maintain Certification (5 MU's)</p> <p>Pursue Athletic Success (5 MU's)</p> <p>Enhance Coaching Ability (38 MU's)</p> <p>Keep Abreast of Current Trends (21 MU's)</p> <p>Networking Opportunities (5 MU's)</p> <p>Optimise Athletic Opportunities (16 MU's)</p> <p>Satisfaction of Learning (13 MU's)</p> <p>Academic Qualifications (37 MU's)</p> <p>Formal Mentoring (20 MU's)</p> <p>Health &amp; Safety Courses (28 MU's)</p> <p>Sport Specific Courses (253 MU's)</p> <p>Tutor/Assessor Training &amp; Experiences (29 MU's)</p> <p>Athletes (28 MU's)</p> <p>Athletic Experience (33 MU's)</p> <p>Coaching Experience (22 MU's)</p> <p>Commercial Video's &amp; DVD's (29 MU's)</p> <p>Field Experts (15 MU's)</p>	<p>Dispositional Barriers (8 MU's)</p> <p>Institutional Barriers (12 MU's)</p> <p>Situational Barriers (70 MU's)</p> <p>Partially or Fully Funded (50 MU's)</p> <p>External Influences (15 MU's)</p> <p>Internal Drive (93 MU's)</p> <p>Formal Situations (367 MU's)</p> <p>Informal Situations (316 MU's)</p>	<p>Coach Learning Determinants (97 MU's)</p> <p>Coach Learning Funding (114 MU's)</p> <p>Coach Learning Motives (108 MU's)</p> <p>Coach Learning Situations (848 MU's)</p>

<p>“I’ve had a lot of informal mentors...” (C89)</p> <p>“Web based research into processes has accelerated learning on NLP” (C60)</p> <p>“Above all watching and talking with other coaches” (C20)</p> <p>“I keep up to date by reading all sorts of literature” (C72)</p> <p>“English coaches conference, 2004, 2 days, Milton Keynes” (C27)</p> <p>“NCF, Motivating your athlete, one day [in duration]” (C26)</p> <p>“...more environments where coaches share and work with others” (C90)</p> <p>“...more mentors to support development” (C17)</p> <p>“Find ways of linking common coaching principles across sports” (C14)</p> <p>“Emphasis on learning through doing” (C10)</p> <p>“[Content] needs to be useable rather than merely theoretical” (C58)</p> <p>“Make sure that the messages are relevant to the listeners situation” (C57)</p> <p>“Provide resources to take away” (C27)</p> <p>“The expertise, knowledge, and experience of those delivering” (C57)</p> <p>“You walk away with something, some knowledge, insight” (C29)</p> <p>“[Enforce] compulsory qualifications at all levels” (C20)</p> <p>“I think the funding streams are important to learning” (C90)</p> <p>“Take your courses to the coaches” (C24)</p> <p>“Biomechanical knowledge” (C23)</p> <p>“Physical development (i.e., strength, power, endurance)” (C50)</p> <p>“You need a basic understanding of sport psychology” (C77)</p> <p>“You have to have good communication skills” (C82)</p> <p>“Knowledge of how best players learn” (C14)</p> <p>“Managing interpersonal relationships - man management” (C19)</p> <p>“The history of your sport” (C57)</p> <p>“...you need a working knowledge of who your playing against” (C85)</p> <p>“Understanding of the laws of the game” (C55)</p> <p>“Awareness of the organisation of the sport” (C34)</p> <p>“Tactical and strategic understanding” (C44)</p> <p>“Technical knowledge of the sport” (C3)</p> <p>“Dealing with injuries once they have happened” (C88)</p> <p>“How to use a computer” (C38)</p> <p>“Legal requirements” (C5)</p>	<p>Informal Mentoring (22 MU’s)</p> <p>Internet (18 MU’s)</p> <p>Other Coaches (66 MU’s)</p> <p>Printed Text (83 MU’s)</p> <p>Conferences (67 MU’s)</p> <p>Generic Workshops (98 MU’s)</p> <p>Group Learning (30 MU’s)</p> <p>Mentoring (21 MU’s)</p> <p>Multi-sport Learning (13 MU’s)</p> <p>Practical Experiences (38 MU’s)</p> <p>Usable Content (24 MU’s)</p> <p>Relevant Content (56 MU’s)</p> <p>Resources (17 MU’s)</p> <p>Educator Qualities (89 MU’s)</p> <p>Enhanced Coaching Ability (47 MU’s)</p> <p>Compulsory Certification &amp; CPD (17 MU’s)</p> <p>Financial Support (13 MU’s)</p> <p>Relevant Location (20 MU’s)</p> <p>Biomechanics (10 MU’s)</p> <p>Physiology (47 MU’s)</p> <p>Psychology (30 MU’s)</p> <p>Communication (14 MU’s)</p> <p>How People Learn (10 MU’s)</p> <p>Management (15 MU’s)</p> <p>History (1 MU)</p> <p>Players (4 MU’s)</p> <p>Rules (3 MU’s)</p> <p>Sporting Structure (1 MU)</p> <p>Tactical (24 MU’s)</p> <p>Technical (44 MU’s)</p> <p>Health &amp; Safety (10 MU’s)</p> <p>Information Technology (2 MU’s)</p> <p>Legal Requirements (1 MU’s)</p>	<p>Non-formal Situations (165 MU’s)</p> <p>Active Learning (102 MU’s)</p> <p>Appropriate Content (97 MU’s)</p> <p>Supporting Factors (50 MU’s)</p> <p>Ologies (87 MU’s)</p> <p>Pedagogy (39 MU’s)</p> <p>Sport Specific (77 MU’s)</p> <p>Miscellaneous (13 MU’s)</p>	<p>Effective Coach Education (385 MU’s)</p> <p>Knowledge Structure (216 MU’s)</p>
Total Number of Meaning Units			1,768 MU’s



It is often argued that the positivistic constructs of ‘validity’ and ‘reliability’ are incongruent with the philosophical assumptions underpinning research that utilises qualitative methods (Corbin & Strauss, 2008; Marshall & Rossman, 2006; Willig, 2001). The present study focused instead on producing what has been described as ‘quality’ research (Corbin & Strauss, 2008; Flick, 2006; Willig, 2001). Central to achieving this is demonstrating that the research is ‘credible’:

“credibility” indicates that findings are trustworthy and believable in that they reflect participants’, researchers’, and readers’ experiences with a phenomenon but at the same time the explanation is only one of many “plausible” interpretations possible from data (Corbin & Strauss, 2008, p. 302).

The credibility of a qualitative report is according to Patton (2002) dependent on outlining the use of rigorous methods, presenting the researcher’s credibility, and by demonstrating a, “fundamental appreciation of naturalistic inquiry, qualitative methods, inductive analysis, purposive sampling, and holistic thinking” (p. 553). Each of these components has been covered through the contents of this chapter. A reflexive account, for example, was included to explore how my educational experiences not only lead to the forming of certain research questions, but had also significantly impacted on my developing a pragmatic belief that qualitative methods are able to effectively answer research questions such as those in the present study (see the *Research Origins* subheading p. 45). My having conducted a previous investigation (Nelson & Cushion, 2006) was discussed, as it was thought that this would help demonstrate that I already possessed an understanding of the research area and had engaged in the practical application of qualitative methods. This would seem important as Corbin and Strauss (2008) have stressed that, “what the researcher brings to the analysis in terms of qualifications, experiences, perspective, as well as underlying philosophical orientation will make a major difference in the quality of findings” (p. 303).

Throughout this chapter, I have also striven to demonstrate what Yardley (2008) has described as ‘transparency’ and ‘coherence’. Transparency refers to, “how well the reader can see exactly what was done, and why” (Yardley, 2008, p. 250). The author goes on to point out that, “a clear and coherent argument

contributes to transparency, but it is also necessary to provide sufficient details of the methods used” (p. 250). Indeed, it was recognised that the procedures of a qualitative study should be concisely stated and fully accounted, as this allows the reader to judge whether the selected methods and their application were appropriate (McKenna & Mutrie, 2003; Marshall & Rossman, 2006). Running parallel to the notion of ‘transparency’ is that of ‘coherency’ which is described as, “the extent to which it (i.e., the study) makes sense as a consistent whole”, and is considered to be largely dependent on the, “fit between the theoretical approach adopted, the research question, the method employed, and the interpretation of the data” (Yardley, 2008, p. 248). ‘Coherency’ and ‘transparency’ have both been demonstrated by my having described: (1) how the research questions evolved (see the *Research Origins* subheading p. 45); (2) what research methods were employed, why they were selected, and how they were implemented (see the *Methodological Choices* p. 53, *Interview Procedure* p. 58, and *Questionnaire Procedure* p. 63 subheadings); and (3) how the collected data were analysed (see the *Data Analysis* subheading p. 67).

Measures were also taken to ensure the credibility of presented findings. Consistent with Patton’s (2002) discussion of credibility, the participants were purposely sampled, neutrality was sought during the conducting of interviews, and data were subjected to inductive analysis. As has already been discussed, criteria sampling (Miles & Huberman, 1994) were employed to ensure that the participants were information rich practitioners who’s coach learning experiences would help elicit answers to the specified research questions (see the *Interview Procedure* p. 59 and *Questionnaire Procedure* p. 63 subheadings). A detailed description of the interviewing process was also presented. This included a discussion of neutrality and how an open-ended interview guide, elaboration probes, and clarification probes, were utilised to understand phenomena from each interviewee’s internal frame of reference (see the *Interview Procedure* subheading p. 59).

To further establish the data’s credibility, a detailed explanation of the inductive analysis process was presented in full. This included an example demonstrating the identification of a meaning unit and how this was grouped with other meaning units to form a higher order theme that partly comprised a general dimension (see the *Data Analysis* subheading p. 67). It was hoped that this would not only clarify the process undertaken, but also demonstrate that data were analysed in a credible manner. A breakdown of participant information (see Table 2.0 p. 58 and



Table 3.0 p. 60) and a broad overview of the inductive themes (see Table 4.0 pp. 70-71) were also presented in tables. This format is said to further demonstrate the data's credibility (Silverman, 2006). By presenting example meaning units and a full breakdown of the general dimensions, higher order themes, lower order themes, and the number of meaning contributing towards each, Table 4.0 (pp. 69-70) provided evidence that would allow readers to view data as a whole. It was hoped that this would further evidence the credibility of the data analysis process. The results chapters were also written in a format and style that aimed to establish credibility. This was achieved by incorporating data extracts to substantiate the presented findings (Corbin & Strauss, 2008; Silverman, 2006). Supporting evidence was therefore presented throughout to help readers evaluate the credibility of the discussed findings. It was through these various approaches that I strove to acquire and present what the American pragmatist John Dewey (1938) termed "warranted assertions" (p. 4). These are therefore the means through which I attempted to establish, and have subsequently come to judge, the quality of my research.

I will now end this chapter by exploring the notion of 'generalisability' and considering if it applies to my research. It has been suggested that 'quality' qualitative research reports, "make clear statements about the generalizability of the findings" (McKenna & Mutrie, 2003, p. 957). So it is to this topic that I will now briefly turn.

### 3.10 *Generalisability*

The overarching aim of this research project was to understand how the participant coaches learnt and what they perceived as being effective and ineffective coach education. Generalisability was not, therefore, an intended goal of this investigation *per se*. As I contemplated whether 'generalisability' had any place in the present study, I found myself returning to the following question: 'Can the findings of this investigation be applied to the entire UK coaching population and perhaps beyond?' While I recognised that the sample included a broad range of coaches, it was accepted from the outset that these participants could never be regarded as representative. It is worth remembering that in 2004 the UK coaching community reportedly comprised of 1.2 million practitioners, a figure that rose to 1,597,000 coaches in 2006 (Sports Coach UK, 2004; Sports Coach UK, 2007). The findings presented in this study were comparably gathered from a sample representing approximately 0.01% of the UK coaching population. Uncritically extrapolating these findings as representative of all

coach learners would resultantly appear naïve. So the concept of generalisability seemed to have little utility in the present context.

Like Amour and Yelling (2004b) within physical education, however, I found it increasingly difficult to accept that the findings had no application beyond the confines of this study. Especially, when discovering that there were some remarkable similarities in the experiences, beliefs, and opinions, despite the coaches having been at different stages in their careers, engaged in diverse forms of coaching, and having walked contrasting learning pathways. This is not to suggest that differences did not exist, as they did, and these are explored within subsequent chapters of the thesis. Despite these discrepancies, however, the analysis process served to demonstrate that shared realities existed in many instances. Numerous links were also found to exist between the findings of the present study and those of investigations previously conducted in coach learning and the adult learning literature more broadly. While this group of coaches could not be regarded as representative, the presented findings were thought to be more accurately perceived as illustrative. I was starting to believe that the results may have some utility beyond the present study.

In light of the above, I have found myself in agreement with Lincoln and Guba's (1985) notion of 'transferability'. While it was beyond my capacity to specify the external validity of the presented findings, this does not mean that they are devoid of utility. Rather the findings have been presented in a way that allows others to establish whether connections can be made. This was achieved by the inclusion of data extracts that not only substantiate the presented findings, but have also allowed for 'transferability' to possibly occur. The potential utility of the presented findings and the theoretical analysis of these findings are therefore the responsibility those coaches, educators, and researchers that engage with this manuscript. It is only the reader that can judge whether the study's findings relate to their own experiences and perceptions, and if the theoretical discussions presented help to develop further understanding by clarifying their own thoughts.

Having presented a detailed account of the methodology employed, I will now present the findings of this investigation. This will open with a discussion of the coaches' underpinning knowledge and an analysis of the learning situations through which these understandings were acquired.



## Chapter 4: Coaches' Knowledge Structures & Learning Sources

### *Introduction*

This chapter aims to provide insight into the coaches' underpinning knowledge and the learning sources they had engaged to acquire this understanding. These areas are explored because they were identified as requiring further investigation (see the *Conclusion* subheading of the *Review of Literature* p. 42). The study of coaches' underpinning knowledge is, for example, a relatively under researched area of coach learning inquiry (Abraham et al., 2006). Hence, it is in need of additional analysis. Research into learning situations, on the other hand, has been conducted primarily in Canada and the United States (Fleurance & Cotteaux, 1999; Gould et al., 1990; Lemyre et al., 2007; Salmela, 1995; Schempp et al., 1998, 2007; Wright et al., 2007). An investigation of how UK coaches' learn was therefore identified as being necessary (see the *Conclusion* subheading of the *Review of Literature* p. 42) as the analysis of UK practitioners remains limited to a few articles that have tended to focus on elite level coaches (Abraham et al., 2006; Irwin et al., 2004; Jones et al., 2003). This chapter addresses these issues and is organised into three sections: (1) Results and analysis, (2) Discussion, and (3) Conclusions and future directions.

The initial focus is on providing an overview of my findings in comparison to those of previous investigations. Attention then shifts to examining the findings at a broader level. Inductive analysis of the coaches' knowledge structure data was informed by Abraham et al.'s (2006) typology of coaching knowledge: (1) *Ologies* (e.g., biomechanics, exercise physiology, motor control, nutrition, organisational psychology, sociology, and sport psychology); (2) *Pedagogy* (e.g., coach behaviour, critical thinking, motor and cognitive learning); and (3) *Sport Specific* (e.g., tactics and techniques). Analysis of the coaches' learning situations data, on the other hand, was informed by Coombs and Ahmed's (1974) typology of learning situations: (1) *Formal* (e.g., coaching certification programmes and university degrees); (2) *Nonformal* (e.g., conferences and workshops); and (3) *Informal* (e.g., athletic experiences, coaching experiences, interactions, self-directed learning). These frameworks were utilised as they were found to assist with the conceptual labelling of themes that were inductively identified in the coaches' responses (see the *Data Analysis* subheading of the *Methodology* chapter p. 67). Theory of communities of

practice (Wenger, 1998), information knowledge networks (Culver & Trudel, 2006) and reflection (Gilbert & Trudel, 2001) were all drawn on to help explain the findings of this study, as they have been widely acknowledged within the coach literature as useful theoretical frameworks. Jarvis's learning theory (1987, 2004, 2006a, 2006b) is also utilised to make sense of these data and is presented as a theoretical framework that could further our understanding of how coaches learn across multiple situations. Jarvis's theory would appear useful as it captures the diverse, messy, and complex processes involved in learning (Illeris, 2008). The chapter concludes with a broad overview of the findings and by identifying areas to be further studied.

## *Results & Analysis*

### *4.1 Knowledge Structure of Experienced Coaches*

Inductive analysis of the coaches' knowledge data lead to the identification of 15 lower order themes that were grouped under the higher order themes of Ologies, Pedagogy, Sport Specific, and Miscellaneous (see Table 4.0 pp. 70-71). Each of these will now be collectively discussed.

*Ologies:* This sub-category of coaching knowledge accumulated the most meaning units (87 Meaning Units). Coaches in the present study, mirroring those of Abraham et al. (2006), made reference to the three basic components of sports science: Physiology (47 Meaning Units), psychology (30 Meaning Units), and biomechanics (10 Meaning Units). Discovering that biomechanics received the least number of mentions is perhaps unsurprising when acknowledging that coaches have reported this as being the least actively studied of the sport science disciplines (Gould et al., 1990).

Comments grouped under the theme of physiology specifically raised the importance of having an appreciation of anatomy, physiological development, and nutrition. A thorough appreciation of the specific fitness requirements of their sport, and how to develop "strength, power, endurance, and co-ordination" (C50) were also highlighted. Although many coaches identified the importance of having a broad understanding of sport psychology, more specific comments identified areas such as "emotional development" (C64), "how to motivate" (C3), and "group dynamics" (C80). The field of biomechanics was less well defined with 6 of the 10 coaches deciding to list the term. Those few coaches that did present specific information



suggested the need to have an “understanding of movement attributes” (C67) and a “basic knowledge of movement analysis” (C73).

*Sport Specific*: Knowledge relating directly to the coaches chosen sport received the single most meaning units (76 Meaning Units) of all the inductive themes. Evidence from the present study therefore builds on those findings previously reported by Abraham et al. (2006). This outcome is also analogous to the study of Gould et al. (1990) who discovered that elite coaches rated themselves as being most knowledgeable in the skills and strategies of their respective sports.

Coaches ( $n = 54$ ) in the present study identified a host of issues including, having an up-to-date awareness of the sports tactical and technical aspects, a battery of drills to facilitate their athletes’ development in these areas, plus an appreciation of environmental conditions and the setting up of equipment. They also highlighted the need to have a “good knowledge of the rules” (C66), an “awareness of the organisation of the sport” (C34), and an appreciation of “the history of your sport” (C57).

*Pedagogy*: Three of the second order inductive themes were classified under the pedagogical category, namely *Management* (15 Meaning Units), *Communication* (14 Meaning Units), and *How People Learn* (10 Meaning Units). Unlike the findings of Abraham et al. (2006), pedagogy received the least number of meaning units when compared against the categories of *Sports Specific* and *Ologies*. Comments grouped under *Management* included terms surrounding “time management” (C52), “man management” (C2), “performance management” (C13), and “management styles” (C56). Discussions categorised under *Communication* centred on understanding the effective delivery of information, through various “communication styles” (C56). Meaning units identified as *How People Learn* highlighted the importance of being aware of teaching and learning processes and skills, including each athletes individual “learning style” (C64) and any potential “barriers to learning” (C12). The presence of this distinct knowledge domain demonstrates that practitioners, like coaching scholars, recognise this as being an important aspect of coaching (Cassidy et al., 2004; Jones, 2006; Jones et al., 2003).

Three further lower order themes were identified which did not appear to fit under any of the three categories already discussed (i.e., *Ologies, Pedagogy, & Sport Specific*), namely *Health and Safety* (10 Meaning Units), *Information Technology* (2 Meaning Units), and *Legal Requirements* (1 Meaning Unit). The first referred to the coaches belief that an appreciation of “massage” (C75), “injury prevention” (C88), “first aid” (C29), plus “injury management and recovery” (C13), are required to help ensure the wellbeing of athletes in their charge.

The second theme consisted of two comments relating to “how to use a computer” (C38). When acknowledging the ever-increasing use of computer based performance analysis programmes (Hughes & Fanks, 2004), it is perhaps surprising that only two comments relating to computers were identified. Schempp et al. (2007), for example, recently reported that expert golf coaches identified the use of computers as a legitimate area of developmental interest, due to an increased use of performance analysis technologies. Nevertheless, performance analysis systems remain relatively expensive, so their use is often restricted to elite performance environments (Hughes & Franks, 2004). Computers are, however, increasingly being utilised by coaches for computer-mediated communication and knowledge acquisition through Web access (Wright et al., 2007). Computer based technology might therefore conceivably become a fundamental component of the coaching process, coaching practice, and coach learning in the foreseeable future. So this may be an area of knowledge that will increasingly be seen as an essential element of the coaches’ intellectual armoury.

One coach identified needing an awareness of the “legal requirements” (C5) that coaching practice must conform. This would appear to be consistent with the finding that elite coaches rated themselves as being least knowledgeable in the sports law domain (Gould et al., 1990). To discover that only one practitioner identified this as an area of legitimate coaching knowledge, however, might be considered slightly concerning.

While an understanding of the areas that comprise coaching knowledge is necessary and useful, the following comment also provides evidence in support of claims that the practice of coaching requires an integrated understanding (Jones, 2000; Jones & Turner, 2006):

When I go out and take a coaching session, technically or tactically, what I should have also thought about, I believe, is the



physiological goals that I want from that. The psychological goals I want from that session. Maybe the social and emotional goals also you know. Now if you don't have an awareness of any of those things your not going to be able to integrate them. So I would say that's a major factor. It's to bring together everything to get that perfect performance. (C89)

Coaching practice is in reality likely to be an interdisciplinary process that draws on coaching knowledge that is multidisciplinary in nature. This raises questions about the appropriateness of delivering 'blocks' of knowledge in coach education (Jones, 2000). Further research is therefore required to establish how knowledge from numerous domains is synthesised to inform decisions and practices within the coaching process. Having presented findings relating to the structure of coaching knowledge, I will now analyse data pertaining to coach learning sources.

#### *4.2 Sources of Coach Learning*

Coaches were also asked to comment on the learning sources they had engaged with to develop their understanding of coaching. Inductive analysis of these data resulted in the identification of 16 lower order themes. Each of these will now be collectively discussed under the higher order themes of Formal, Nonformal, and Informal Learning Situations (see Table 4.0 pp. 70-71).

##### *4.2.1 Formal Learning Situations (367 Meaning Units)*

Analysis of the data revealed 5 formal learning situations (see Table 4.0 pp. 70-71). Within the following section these will be explored under the titles of National Governing Body (NGB) Awards and Academic Courses.

##### *4.2.1.1 NGB Awards*

Formal coach education largely comprised of courses run by national governing bodies of sport. While coaching certification programmes accounted for the vast majority of attended awards, referee/umpire courses and qualifications designed for physical education teachers were also identified. Initial coaching awards typically ran over a weekend, with the subsequent tier of certification delivered over a week, and the higher level courses requiring the attendance of a few taught phases interspersed

with periods of individual study that were spread over a period of approximately 12-18 months. Coaches referred to their having completed health and safety courses focusing on the topics of child protection, first aid, and sports injuries as part of the certification process. These tended to be a day or less in duration and were frequently taught as a compulsory module necessary for the attainment of a broader coaching award.

Those coaches that were interviewed held mixed views as to the usefulness of coach education programmes. So evidence from this study builds on earlier reported findings (Abrahams et al., 2006; Irwin et al., 2004; Lemyre et al., 2007). This is illustrated by the comments of two elite coaches whose experience of the same educational programme were somewhat contrary:

When I first started coaching I sort of figured that I knew things, as you do when you are young and arrogant. I figured that I knew all that I needed to know and I went along to these courses a bit sceptical thinking, ‘Phaw what are they going to teach me?’ But the reality is that it was a good academic exercise...A lot of the stuff you do know, but there were some things on courses that I didn’t know. What it did do is give me a good sense of balance of how important certain training styles are, endurance versus power, you know, you have to look into nutrition and so on. (C80)

I think it would be true to say I probably did the level 1 and the level 2 awards as early as I could in my career, but I don’t think I learned a huge amount from them. (C83)

Despite differences in opinions, the general message being portrayed by the coaches in this study was that “you always learn something” (C45) although its often “little nuggets here and there” (C80). The sentiment of the coaches’ responses was captured by one coach who while stating “I don’t think I’ve ever been on a course that wasn’t effective in some way” went on to suggest that “there’s been parts of every course I’ve done which I think could be improved” (C89).



In two instances, elite coaches had actually contributed towards the construction of their NGBs coach education programme. Both participants perceived that their having engaged in this process was a valuable learning experience:

[I helped design the new programme and the resultant learning was] vast because attending the technical and tactical panels gave me an indication of what they (expert panel members) wanted me to include in it...Those discussions have got quite heated at times because there's different feelings on the way they should be approached. So the whole learning experience of that has just sent my knowledge through the roof, because I have just heard so many different opinions and so many different views. (C79)

I wrote the old coach level 1, 2, and 3. Then rewrote the coaching and instructors award part 1 in England. In France I wrote levels 1, 2, and 3...It made me more confident as a coach...In many ways its more challenging as a coach to actually sit down and write programmes for coaches than writing programmes for athletes. (C77)

A larger number of coaches ( $n = 15$ ) expressed that they had practiced as tutors and assessors. In order to deliver and assess NGB awards, coach educators were first required to attend and pass certification courses. It was suggested that this certification process, as another form of education, actually had a direct impact on the attendees coaching practices:

Tutor training emphasised for me the need to cater for different learning styles within the coaching environment. (C15)

My experience of tutor training has developed my reflective practice and this I feel has developed my coaching. (C54)

The following quotes demonstrate that these participant coaches also felt that the delivering and assessing of coach education courses had presented them with valuable learning opportunities:

I would probably say that on balance I learn twice as much on how I should do it (coaching) when I'm trying to teach other coaches how to do it. For example, say its body language. You watch another coach coaching and say, 'Have you noticed you are very repetitive with the same word again, again, and again. Have you ever tried different words to get the same result?' Then you say to yourself, 'Well I used the same words a lot of the time, I need to change that'. (C82)

I can't just do things off the cuff. So there's quite a lot of research that goes into it...I think that when your doing (delivering) coach education it's a massive personal learning [opportunity]. (C85)

The preparation and experiences of coach educators and assessors has to date been largely unexplored. When recognising the importance of the role that these individuals play in the education of coaches, it would appear that the training and professional practices of educators warrant further exploration.

The findings from coaches ( $n = 18$ ) in the present study also provided further evidence to suggest that formal mentoring is now very much happening (Nash, 2003; Wright et al., 2007). Encouragingly, comments suggested that formal mentoring engagement had presented valuable and worthwhile experiences:

The mentoring course had broadened my view of my own coaching performance and allowed me to recognise the importance of communication and allowing players and coaches to seek solutions, rather than endeavouring to fix problems for people. I had the opportunity to coach and meet players and people from quite a high level within the game of rugby. Having had this opportunity, I now intend to build and develop this through job shadowing and watching other coaches work, to broaden my knowledge, while



also reviewing my own philosophy and ideas towards coaching, technique, and skill acquisition. (C14)

[While] taking the Coach Part Two award...I was assigned a mentor who was very professional and wanted everything exact! Although I was worried, I worked hard under his direction and have really appreciated his thoroughness. I think that having training over a longer but more intensive time frame enabled me to practice and learn at the same time, and to consolidate my learning. Having a mentor meant my learning was very personal to me and gave me lots of opportunity for questioning and developing my coaching skills. (C68)

So it would appear that NGBs are starting to implement the recommendations of earlier investigations (e.g., Bloom et al., 1995; Gould et al., 1990) by offering formal mentoring pathways. While NGB awards accounted for the vast majority of the coaches formal education, attendance of academic courses were also identified.

#### 4.2.1.2 *Academic Qualifications*

Analysis of the coaches ( $n = 24$ ) learning experiences also highlighted the completion of further education and higher education courses (i.e., diplomas, undergraduate degrees, taught masters, masters by research, and one coach with a PhD). Academic study comprised a range of disciplines including coaching, sports sciences, physical education, management, education, and biology.

Those coaches ( $n = 9$ ) that commented on their attendance of academic courses wholeheartedly supported their worth and felt that attendance had significantly contributed towards their personal coaching development:

In terms of the MSc (in coaching)...[if for example] you look at the elite athlete [module], which was all about looking at how elite athletes develop and then how to plan preparation programmes for them. I use that information directly in my job now. If I hadn't done that course I probably, no I would definitely not have used as much of that (theory)...The work I did on group dynamics in sport

psychology is directly used in all the team building exercises we use. We're very big into giving the players ownership and responsibility in graded terms and that's only been in the last two to three years. Ownership and responsibility for their own performance while supporting them. Now much of the work we do in terms of how we achieve that has come from the group dynamics stuff that I learned in my masters...So much of it directly impacts.

(C89)

I'm in a fortunate position. I've come through a physical education, sports science [based], programme. So I'm degree educated within sports science. It's absolutely crucial because first of all your learning anatomy, physiology, bio-mechanics, nutrition, etc. Although I'm not an anatomy and physiology specialist, I have the building blocks...I've got the benefits of that [education]. If you haven't got that I find it very difficult for a coach to be successful.

(C78)

Seven of the participants that had been educated to teach, 6 of whom had made a transition to performance coaching, saw little difference between the process of teaching and coaching. They were, instead, of the opinion that their teacher education, and practical teaching experiences, had helped them establish a knowledge base that was largely transferable to the field of coaching:

Teaching has impacted upon me because I can't see the difference between coaching and teaching. You've got a captive audience, you are transferring knowledge, you are developing understanding, you are obviously communicating, and the classroom is hopefully a harmonious environment, a positive environment, where you're developing a culture of learning. That classroom is exactly the same as the rugby field. So although I'm sure I could be challenged quite successfully on this, for me personally I don't see the difference between teaching and coaching. So when I say I've only been rugby coaching for ten years, I guess I've been coaching,



teaching or involved in a learning environment for twenty years. I know you can draw a lot on your teaching experience. (C84)

I think it helps to have a teaching background, otherwise you've got a whole stack to learn...If you're a teacher it's pretty straight forward because you have already done it. So how you present, how you plan a lesson, how you organise yourself, and how you make do sometimes...As a teacher you've got thirty kids in front of you, you're thinking pretty quickly on your feet...As a teacher I think you're always looking for ways which you can get kids to learn something and they don't all learn the same way. (C87)

While Lyle (2002) has questioned the link between teaching and coaching, these findings arguably provide evidence in support for the claim that coaching should be re-conceptualised as an educational endeavour requiring an intellectual workforce that have participated in extended academic study (Jones, 2006).

#### *4.2.2 Nonformal Learning Situations (165 Meaning Units)*

Analysis of the responses revealed that participant coaches ( $n = 54$ ) also engaged in 2 forms of nonformal education, through the attendance of generic workshops and conferences. Generic workshops were often hosted by Sports Coach UK (formerly the National Coaching Foundation) and tended to last between a couple of hours and a day in duration. These short courses typically covered a specific coaching topic (e.g., coaching children, coaching disabled athletes, communication, programme planning, performance analysis) or a sports science topic (e.g., injury recovery, motivation, nutrition, speed and endurance, strength and conditioning). To date there has been little investigation into the content, delivery, and impact of such nonformal workshops.

The participant coaches also attended and presented at numerous regional, national, and international conferences, which typically took place over a period of 1-3 days. Although many saw these as learning opportunities, the coaches sometimes arrived with an expectation to acquire a minimal amount of new knowledge:

I've been to various conventions. Often you come away with two or three things and it just may be in a comment... Sometimes it can be quite macro, it just depends who is speaking. But, I go there with a view that for those three days, you know, it just may be one presentation, but if it hits you its worth going to. (C85)

[At the] annual coaching conference... you will always pick up two or three little ideas from that. I think if you can just come away even with one thing from somebody [its been worth it]. (C87)

Building on the findings reported by Bloom et al. (1995), coaches in the present study also expressed that they attended conferences and generic courses to network and acquire knowledge through informal interactions with other attendees:

It's what's talked about at the bar at night that is as much use as anything that happened during the day. Because you tend to just talk about sport and if you put coaches together you talk about the coaching of sport. You know, 'I had this situation', and you know, 'I had that once, how did you deal with it?' That sort of informal interaction. (C88)

I went to the United States, as I was asked to go and do a presentation out there just before Christmas... There was a guy I bumped into and he gave me an insight into some of the psychometric testing they do in the French Federation. So I just like to think if I ever go somewhere if I could pick up two things now from a conference [it was worthwhile]. (C85)

The coaches' learning experiences therefore demonstrated that they attended formal and nonformal education in an attempt to gather further understanding. Data also revealed, however, that the coaches did not limit themselves to continuous professional education, but showed that they also engaged in informal learning. It is to the exploration of informal learning situations that focus will now turn.



### 4.2.3 *Informal Learning Situations (316 Meaning Units)*

Inductive analysis of the data resulted in the identification of 9 lower order themes that were grouped under the higher order theme of Informal Learning Situations (see Table 4.0 pp. 70-71). Within the following section these lower order themes will be collectively explored under the headings of Experience as an Athlete, Self-Study, Interactions, and Coaching Experience.

#### 4.2.3.1 *Experience as an Athlete*

A finding consistently reported within the coach learning literature is that knowledge is often acquired through athletic participation (Abraham et al., 2006; Irwin et al., 2004; Jones et al., 2003, 2004; Lemyre et al., 2007; Salmela, 1995; Schempp et al., 1998; Wright et al., 2007). Similarly, the interviewed coaches ( $n = 16$ ) stressed that they also learnt a great deal from their coaches as an athlete and trying to master performance through a process of ongoing self-development:

I spent 13 years with what was recognised as one of the top coaches in the world, in equestrian sport and in particular 3 day eventing. I basically competed as a stable jockey for the yard...I would say that from that coach I would have learnt most of my knowledge, the technical side, the psychological side, the whole shebang basically. A normal day at the stable would be, for example, between 7 o'clock and 9 o'clock in the morning I might ride 2, 3, maybe 4 horses with the coach coaching me one-to-one. Then at 9, 10, and 11 o'clock I would ride in a group training session with the coach...Then I might have a private training session with the coach again in the evening. That basically happened 6 days a week. That's an awful lot of coaching and an awful lot of training! (C82)

[I learnt] from the experience side of doing it (athletic participation) and then wanting to understand why things were done that way and what I needed to do to improve...The way I was coached led me to be an empowered athlete, which gives you a head start as a coach straight away. (C88)

Data from the present study therefore offers further evidence demonstrating that coaches serve an apprenticeship of observation (Cushion et al., 2003). Indeed, it has been proposed that early and competitive sports participation account for the initial phases of a coach's development pathway (Erickson et al., 2007) and that practitioners accumulate thousands of hours of experience as an athlete (Gilbert et al., 2006).

Coaches being interviewed were asked to comment on whether elite athletic experience was an essential prerequisite for the coaching of elite athletes. Those exploring this question gave a number of arguments for and against this proposition. Some practitioners ( $n = 10$ ) felt that the possessing of elite athletic experience often presents coaches with an initial level of credibility and helps them to understand what their athletes are experiencing:

It (elite athletic experience) helps massively there is no question about it. If athletes know you've been an ex-international you have a massive head start and people will listen to you. Even if you talk a load of rubbish for the first few months, you will still have the playing squad [on your side]. But at the end of the day, you will fall down if you haven't got the full coaching and management skills...[However] it buys you a lot of time. (C87)

I do think it (elite athletic experience) helps. If you have come from a high level yourself, then you know what it takes to get there, you know what it takes to stay there, you know the pressures those people are under when there at those sort of competitions, because you can relate to the problems that they are facing. If you have not experienced those pressures yourself it's more difficult to relate to them. (C82)

Evidence from the current investigation builds on the findings of Schempp et al. (1998) whose golf coaches reported that their, "playing experience was a commonality they had with their students, enabling them to better relate and express information to learners" (p. 300). This finding is also comparable to a study completed by Irwin et al. (2004) who discovered that, "being a past performer



allowed the coach to better understand the working relationship between gymnast and the coach” (p. 432).

An intriguing finding from the present study was that elite athletic experience was seen to afford coaches a high degree of credibility in the eyes of athletes. It could be argued then that elite athletic experience provides coaches with heightened cultural capital (Bourdieu, 1986) as they are seen to possess expert power (French & Raven, 1959). It should, however, be noted that the participants stressed that any credibility initially presented as a result of previous sporting successes were often short lived and that athletic memories inevitably fade, thus making it increasingly difficult for coaches to relate to their athletes experiences.

Other coaches ( $n = 6$ ) argued that an early decision to concentrate on a coaching career, instead of pursuing athletic prowess, presented an opportunity to focus on developing coaching expertise. It was also suggested that elite athletic experience leads some practitioners to coach as they were taught or had preferred to be taught as an athlete. This was thought to be inappropriate, as the approach adopted might be far from optimal given recent coaching developments and contextual factors relating to their specific coaching context:

When I realised that I wasn't going to be a top player it gave me a lot more time to think about coaching, which is what I did. If you were a top player, you would play until your thirty-five and wouldn't even think about coaching until you're probably thirty-three. (C89)

When athletes come into the sport they coach it the way they had been coached or the way they played it, which isn't always relevant. So as a player, my career has been finished 15 years, the game has moved on. So if I was still coaching it the way I played it or had been coached, it wouldn't be very relevant. (C77)

These data therefore provide further evidence towards the discovery that while athletic experiences are often informative they may in certain instances also prove to be limiting (Irwin et al., 2004). This finding has significant implications for the provision of coach education. It would seem necessary in light of this discovery that

educators help coaches to critically reflect on their athletic experiences, so that influences on their philosophy and practices can be identified. This would allow practitioners to give critical consideration towards the appropriateness of their behaviours for the coaching of their current athletes. It would also enable them to consider how understanding and opinions informed by previous athletic experiences might be acting as barriers to additional learning. While coaches would appear to learn much as athletes, a considerable amount of ongoing learning also occurs through engaging in various forms of self-study, interaction, and experiential learning. Each of these will now be discussed.

#### *4.2.3.2 Self-Study as a Coach*

One of the means through which the coaches acquired knowledge while coaching was through a process that might be best termed self-study. This included the reading of printed text, accessing of the Internet, and the watching of commercially produced media. Participants claimed ( $n = 39$ ), for example, to have collected a wide range of text that included “books” (C19), “coaching magazines” (C17), and “sports science articles” (C61). Sports books comprised of texts specialising in sporting history, tactics and techniques, sports science, coaching, plus biographies and autobiographies of successful athletes and coaches. The coaches identified that they also referred to books discussing business management and leadership, including autobiographical and biographical texts of successful businessmen:

I’ve got quite a lot of management books...I try and read about successful coaches or successful chief executives. I just find it interesting and usually there is something that you underline or a principle to take away. (C85)

Having taken over as the senior coach, I started getting very inspired. I’d always enjoyed reading widely, but I started to read a lot about leadership (in the business domain)...I started to realise there was a massive amount of information that not only gave me a greater understanding of myself as a person, but also in coaching. (C90)



A study by Gould et al. (1990) highlighted that 95% of their 130 expert practitioners reported that the reading of books and journals had contributed towards their coaching knowledge. Schempp et al. (1998) subsequently identified that expert golf coaches ranked books as a secondary source of coaching knowledge, with only other coaches and practical coaching experience being considered more influential. When acknowledging these findings, those of more recent investigations (Abraham et al., 2006; Schempp et al., 2007; Wright et al., 2007), and that of the present study, it is perhaps surprising that printed text has not received greater recognition as an important and effective means of disseminating knowledge to coaching practitioners. As such it would appear that this topic warrants further consideration.

In addition to the reading of various forms of printed text, three coaches highlighted that they had also learnt from actually writing articles and books: “I wrote a book...Writing a book was a way of putting it down and learning” (C90). Although many coaches liked and used the print medium, some stressed that it was not always an optimal means of transferring information, as some practitioners do not enjoy reading and find it difficult to visualise the application of what is being discussed:

I don't read many books unfortunately. I probably should do, but I don't...I haven't got the time to read books and things. I'm so up to my eyes in it all the time...The national governing body produced multimedia resources and they send those to me. It's a much better medium for me to understand. I like to see things visually...I don't like reading. (C87)

You don't learn very well from a book because you don't see the movements, which is why I like to buy DVD's. (C75)

Despite being a collector of printed text in its many formats, the following coaches admitted to rarely accessing these resources:

I have a collection of badminton books, but I would say the majority of them I haven't read. I've written two and I haven't even read those to be honest! (C77)

I've got journal articles and folders with stuff in, but the short answer is no I don't read through them. (C79)

Coaches did not limit themselves to text in its printed form, but also accessed the Internet in search of resources. Although the number of internet mentions was relatively low when compared to other informal learning categories (e.g., printed text and other coaches), 18 coaches nonetheless suggested that it had offered an effective means of accessing information on a host of topics (e.g., practical drills, coaching and sport science material, and sporting practices in other nations):

I use the Internet a lot...I think it's quite an inspiring media, [but] if you're not careful you could spend half your bloody life on the laptop looking for this site and that site. I've got certain sites I really think are useful. (C89)

I like the Internet because...I think that you owe it to your players to be the best you possibly can be. How do you do that? By picking and unlocking peoples brains, particularly in different cultures. So for instance, when on the Internet I went on the website of the English rugby clubs and see what they are doing. I do, however, go onto the Australian club websites. Different culture, different approach, and they are also so much more open. They will actually, for instance, publish their level three papers of defence, or whatever it may be, so you can download them. (C84)

These data provide evidence in support of the proposition that coaches are starting to view the internet as a legitimate source of coaching knowledge (Wright et al., 2007). Three of the coaches interviewed, however, mentioned that they remained cautious of the internet. These coaches were of the opinion that a lot of misinformed information has been posted on websites:

I'm a bit careful on the internet of what I read. I do pick stuff up from it, but I am a little bit hesitant because yes there is good stuff



out there, but there's also some extremely misleading stuff as well.  
So I'm a little bit more hesitant. (C79)

You get a lot of people who just love unloading their theories  
online. (C80)

The coaches ( $n = 20$ ) also sought to acquire information through video and DVD covering a range of topics that included general principles of coaching, technical and tactical aspects, and the sport sciences. So the findings of this study build on those of Wright et al. (2007) in demonstrating that coaches' watch commercially produced media. The coaches in this investigation preferred watching DVDs that demonstrated the practical application of knowledge. It was suggested that this aided their ability to conceptualise how information and practices could be utilised in their own coaching context:

I'm an avid collector of all sorts of coaching videos and psychology stuff as well. I've got a really good one, a video, sorry a DVD, about [a coach] who's reasonably well known for his use of sport psychology... Those sorts of things are really going to give you an insight into what these people do... So not normal biography ones, something with a bit more meat on it. Where you're actually seeing or having described how they work with an actual team or individual. (C89)

Coaches might not, however, necessarily limit themselves to media from their own sport. The following quote demonstrates that this coach watched commercially produced materials from other sports, as they offered an opportunity to sources fresh concepts and practices that could potentially be adapted to his own sport:

It's a mixture of match coaching, match video, but I also still buy coaching videos to see how other people are doing things, how other people are teaching things, how people are solving problems... [I watch them] to see if there is anything we can use, anything we can adapt, so it's just you know looking at other

sources. Looking at conditioning stuff, looking at how football deals with space, managing space, managing spatial awareness, all those sorts of things. Again, there are elements that we can use [in our sport]. (C86)

A commonality across these self-study endeavours was that these coaches were striving to source information that was practically useful, credible, and usable. Another means through which they attempted to acquire knowledge conforming to these criteria was through various forms of interaction.

#### 4.2.3.3 *Interactions*

Consistent with the findings of previous research, coaches in the present study were found to learn from interactions with other coaching practitioners (Abraham et al., 2006; Irwin et al., 2004; Jones et al., 2003; Lemyre et al., 2007; Wright et al., 2007), mentor coaches (Bloom et al., 1998; Irwin et al., 2004; Jones et al., 2004; Salmela, 1995), athletes (Lemyre et al., 2007; Schempp et al., 1998; 2007), and field experts (Abraham et al., 2006).

Learning from other coaches was reported by the participants ( $n = 42$ ) as an important means through which practitioners acquired additional knowledge and crystallised their own coaching philosophy. Participants in this study demonstrated that they sought opportunities to meet other coaches to engage in discussion and watch other practitioners in action. Like the coaches in Bloom et al.'s (1995) study, the participants also stressed that it was possible to learn from all situations, including those that were perceived to be negative:

Watching other coaches...I think you take something from every session, even if you don't apply it to your [own] coaching. On a negative side, you [might] say, 'That was an awful session, I wouldn't do it like that, but having said that this has given me an idea. If I just change that slightly, I think it could be successful'. Every rugby session I've gone to watch I have taken something away from. For instance, when I was in Spain, my head coach did a little defence session that was incredibly simple and I have now



taken that, I've just changed it a little bit, and used it almost straight away. (C84)

I still sit down with my pad and scribble down what other coaches are doing. Last year at the world qualifiers in Sheffield...I sat down and watched the Albanians train...Just some of the things the coach did in his practice made me think, 'Hey that's good, I like that'. It was the little details...the way this guy organised practices. I took those on board, made a note, and just thought, 'Hey that's useful'...You learn something from any coach, even if it's how not to do something. (C86)

The finding that coaches learnt by observing and discussing with other practitioners is a re-occurring theme that has consistently arisen in literature discussing coach learning (Abraham et al., 2006; Bloom et al., 1995; Gould et al., 1990; Irwin et al., 2004; Schempp et al., 1998, 2007; Wright et al., 2007). So this has become a well establish learning pathway, with its implications on knowledge development and the professional socialisation of coaches being widely recognised (Cassidy et al., 2004; Cushion et al., 2003).

Evidence from the present study also demonstrated that the coaches ( $n = 14$ ) learnt through observations of, and discussions with, informal mentors. Those that discussed the influence of informal mentoring suggested that their mentor caused them to think critically about their own coaching. This was often the result of their mentor challenging current understanding, offering alternative solutions or simply through the protégé observing their mentors behaviours and practices:

[My mentor is now] probably one of my best friends...When I went freelance in 1991, I wouldn't go a week without speaking to him once or twice a week on the phone. And that would be an hour or two each time. Sometimes it would just be general gossip. I'm finding out what he's been up to and he's finding out what I'm doing. But it would often lead into some sort of coaching situations. I would say something and he would say, 'I would have done that a little bit differently' or those sorts of things. We still

talk even though he's been retired for a number of years. I still speak to him a couple of times a week and meet up with him probably a few times a month, and I talk about specific riders. (C82)

I worked with a manager who taught me the value of caring if you like, for want of a better word, empathy...He wasn't that successful in terms of trophies, but out of all the staff that ever worked for him, I never met anyone, even to this day, who would not have run through a brick wall for him. It was the way he encouraged staff, looked after staff, the way he dealt with them and showed he cared in terms of not only their professional life, but also their family life outside. He had a big, big, impact on me, about how I then went and dealt with people. (C89)

Having been mentored during the earlier phases of their coaching careers, more experienced coaches reported that they now assumed the role of being a mentor to other practitioners. In discussing his experience of acting as a mentor, the following quotation demonstrates how this coach found the process to be a valuable learning experience not only for his protégé, but himself also:

I did some mentoring and that's really interesting...We coached together once a week and either I would coach, sometimes we would both sit and watch and coach, but probably one out of 3 lengths I would coach and she would sit back and say nothing. But then she would ask me questions about what I was coaching. 'Why did you do that?' 'Why did you pick that and not that?' 'Why did you ask him to do that?' 'Why did you pick up on that fault?' 'Why didn't you pick that fault?' It was interesting because I thought, 'Why didn't I?' Then other times she would coach and I wasn't allowed to say anything at all and at the end I would talk to her. Not so much nit picking bits of her coaching, but her style of coaching. Like, 'Did you give enough feedback?' 'How many times did you give her positive feedback?' 'I think feedback was



too slow'. So it was all about coaching style. That was good fun, very hard to do initially for both of us, because you are quite exposed. But we thought it was quite good and very productive. (C83)

Field experts (e.g., physiologists, psychologists, bio-mechanists, performance analysts, physiotherapists, etc) were also identified as a means of acquiring further understanding. It should, however, be noted that the limited number of meaning units within this category were obtained exclusively from performance coaches ( $n = 10$ ). So it would appear that accessing this knowledge source is at present largely restricted to coaches within this domain. This is perhaps unsurprising as it is only coaches of this level that have support staff responsible for assisting the preparation of athletes in their charge. In these instances it would appear that practitioners are able to acquire a working knowledge of various topics from members of their support team:

[For example] working with good physio's. I learn a lot from them about stretching and the like. So you discuss, 'Why is this?' 'Why has he got that?' 'And what can you do to make sure that does not happen in the future?' All those kind of things. You can work stuff out with other people, which I think is pretty important. (C83)

We have a sport psychologist who works with us. Again that's an example of somewhere that I didn't have a lot of knowledge. But working with him, and next to him, and watching him operate, has gradually increased my knowledge, which I hope has enabled me to be a better coach. (C84)

These elite level coaches also actively sourced outside experts in some instance. This finding builds on evidence reported by Schempp et al. (2007):

It's a question of sourcing the person I want to speak to and I will ring them up and say, 'I'm coming down to see you if that's alright'. I just go straight to the source...I spend a little time researching who I think is the best available person in this country

and if that person is world class, and I think he's good enough, then I will go to that person. If not, I will go abroad and take that knowledge. (C75)

I think the main one (expert), who I spent most time with, is the one in the United States. He's probably the main one because he has 20 years of research behind it and it's (theory) tried and tested, as opposed to thoughts and ideas. So there's a lot of concrete research behind it...In the last 6 years I've probably spent about 50 or 60 days with him. (C81)

Participants ( $n = 20$ ) in the present study also identified athletes as a legitimate source they had drawn on. The participant coaches reported learning from watching competitions via attendance, TV, and video. It is through these sources that they were able to gain an appreciation of factors contributing towards elite level performance, analyse the strengths and weaknesses of their own athletes and any direct competitors, while also allowing them to investigate similarities and differences between domestic performance and that of abroad. Athletes were also identified as a valuable source for gaining feedback about their coaching, learning more about their athletes individual learning styles, and gaining further insight into practical solutions to coaching problems:

If you're confident in yourself, you sit down with the players and you say, 'Look we've got a problem with the line out, how are we going to solve it?' If you're confident to do that, I think you're more likely to come up with successful solutions, because your problem sharing aren't you. I think your respect with the players would go up. It may be the little quiet player who doesn't say a lot that says, 'Well why don't we do that'. And you know, sometimes as a coach if you're stuck with problems all the time, and your trying to solve them, it can be very stressful you know. So I think that talking to the players is something that I have certainly developed over the last couple of years and the confidence to ask them what they think. (C84)



I took myself to the Athens Olympics...I wanted to go and watch the top teams in the world...I wanted to go to the Olympics and see, OK what are we looking at? Has the game changed dramatically? Are we not doing something? (C78)

Similarly, Schempp et al. (1998, 2007) discovered that expert golf coaches also reported that athletes offered an importance source of information. So it would appear that coaches learn a significant amount through various forms of interaction and self-study. In addition to these sources, coaches also suggested that they learnt directly from their practical coaching experiences.

#### 4.2.3.4 *Coaching Experience*

A proportion ( $n = 23$ ) of coaches in this study recognised that their knowledge was partially accumulated as a result of their engaging in, and reflecting on, practical coaching experiences. For some, their situation dictated a necessity to learn on the job, while others mentioned that they chose to actively experiment and engage in an ongoing process of reflection:

I was there (a club) for three and a half years. I went straight in on my own. I'd never done the job before. I had to suddenly negotiate contracts and everything, it was a complete nightmare...I joined as an amateur and then it (the sport) suddenly went professional. All the players knocked on my door one day and said, 'We want £20,000 to £25,000'. I wasn't expecting that! That was a massive culture shock. So it was three and a half years of learning on the job. (C87)

I spent some time in USA on coaching camps, which again just gave you so much opportunity to experiment. So I learned valuable experiences there...[It gave me the opportunity] to experiment with sessions and to learn about children, and about how they learn...I suppose it was just a case of thorough experimentation, through making mistakes, through not wanting to make them again. (C85)

You never stop learning as a coach. You might think about how should I solve that particular problem, and you might have to experiment, and suddenly you find a way of solving it and you say, 'Ah yes. When I have a similar problem, I [will] know exactly what to do'. (C82)

The coach learning literature has consistently reported that coaching experiences are one of the major factors contributing towards practitioners' ongoing development (Abraham et al., 2006; Gould et al., 1990; Jones et al., 2003; Schempp et al., 1998). Consistent with previous reports, the coaches under investigation identified that trial and error (Irwin et al., 2004), and experimenting with ways of stimulating greater athlete learning (Schempp et al., 2007), were means through which they learnt experientially.

### *Discussion*

The findings of this chapter demonstrated that the coaches under investigation possessed a range of knowledge. The categories identified through the process of inductive analysis were conceptually labelled using Abraham et al.'s (2006) *Ologies*, *Pedagogy*, and *Sport Specific* typology. While this framework offers a means of identifying knowledge types, evidence was also presented suggesting that coaching practice likely requires integrated and multidisciplinary understanding (Jones, 2000). Discovering that the participant coaches' knowledge largely comprised of an understanding about traditional sports science disciplines, sport specific information, and an appreciation of pedagogy is perhaps unsurprising. These areas reportedly form the basis of traditional coach education curriculum content (Abraham & Collins, 1998; Campbell, 1993; Knowles et al., 2005; Martens, 1997; Trudel & Gilbert, 2006). They have also been identified as those disciplines most actively studied by coaching practitioners (Gould et al., 1990). So it would seem that these coaches were the product of their journey through a system that has been built on the foundations of a bio-scientific view of coaching (Jones, 2000; Potrac, Brewer, Jones, Armour, & Hoff, 2000; Potac et al., 2002; Woodman, 1993). Jones and colleagues have more recently argued that it is also important for coaches to understand that coaching is a social process. They contend that coaches need to appreciate that their work, and the interactions they engage, are shaped by the complex socio-cultural dynamics of the



coaching process. It would appear from the results of the present study that this remains an area of understanding that coaches have little awareness. An expansion of coach education curricula, beyond the bio-scientific education of coaches, would resultantly seem necessary if this is to be resolved.

It was demonstrated that results pertaining to coach learning sources built on those specifically focusing on elite performance coaches (Abraham et al., 2006; Fleurance & Cotteaux, 1999; Gould et al., 1990; Irwin et al., 2004; Jones et al., 2003, 2004; Salmela, 1995; Schempp et al., 1998; 2007) and voluntary youth sports coaches (Lemyre et al., 2007; Wright et al., 2007). Previous investigations had identified between 3 and 11 learning categories (see Table 1.0 p. 12). Coaches in the present study, however, were shown to learn from 16 sources (see Table 4.0 pp. 70-71) that were inductively categorised into three higher order themes. These themes were conceptually labelled using Coombs and Ahmed's (1974) typology of *Formal*, *Nonformal*, and *Informal* learning situations. The breadth of sources elucidated can arguably be attributed to the size and diversity of the sample studied, methodological approach utilised, and depth of analysis employed.

Analysis of these data revealed that the coaches in this study engaged in ad-hoc learning pathways of which the attendance of educational activities was clearly apparent. Central to this process was the obtainment of NGB awards. While all of the practitioners had completed sports specific courses, the data supported the proposition that these tend to occur over short blocks of time and usually years apart (Knowles et al., 2001). It would therefore appear that coaches have had limited opportunities to engage in formal coach education. When acknowledging this, and the fact that the coaches were highly motivated learners striving to acquire additional knowledge that could inform and enhance their coaching practices (see the *Coach Learning Motives & Deterrents* chapter pp. 108-123), it comes as little surprise that they actively explored alternative forms of learning to supplement formal provision.

Coaches also attended coaching conferences and generic workshops that were again often short in duration. While it was hoped that new information and understanding would be acquired from the presented material, these coaches also valued attendance because of its having offered them an opportunity to interact with other practitioners in the field. It was also demonstrated that much of the participants learning occurred beyond that delivered during educational endeavours. So the findings of this study contribute to a growing body of evidence demonstrating that



learning in informal situations is a key component of coach learning (Nelson et al., 2006). While the coaches in this investigation were shown to engage in various forms of coach education, it is unrealistic and inappropriate to think that coaches should or would stop learning when they leave the confines of educational institutions. Learning in informal situations naturally occurs because learning is a fundamental part of human living (Jarvis, 2006b). Previous research has, for example, served to demonstrate that the attendance of coach education accounts for only a fraction of a coach's development (Errickson et al., 2007; Gilbert et al., 2006).

Being coached as an athlete was shown to have a lasting impact on the participant coaches. It would appear therefore that sports participation is a common component of coaches' developmental pathways. This presents a period during which they experience an informal apprenticeship of observation (Cushion et al., 2003). While the benefits of athletic experience are often highlighted, those negative aspects identified by the coaches were also explored. A considerable amount of learning would nevertheless appear to have taken place prior to any conscious decision to become a coaching practitioner.

The participants were also found to learn informally through ongoing interactions, practical coaching experiences, and engagement in self-study. The coaches in the present study were shown to learn from interactions with other coaching practitioners, mentor coaches, athletes, and field experts. Wenger's (1998) theory of social learning has been identified as a valuable framework for attempting to understand how coaches learn through interactions (Cassidy et al., 2004). Central to Wenger's theory is what he termed a Community of Practice. These are defined as, "a group of people who share a common concern, set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger, McDermott, & Snyder, 2002, p. 4). While social learning theory offers a theoretical framework for making sense of group based learning, it would appear that coaches often limit those with whom they share knowledge. Cassidy et al. (2004), for example, have argued that: "in sporting context it may be difficult for coaches who wish to be reflective practitioners to be part of a like-minded group, given the varied aspects of the sport culture that acts as constraints in this regard" (p. 23). Culver and Trudel (2006) have gone on to suggest that it is extremely difficult to find a community of practice outside of a club or team in the current sporting cultural climate (Culver & Trudel, 2006). Evidence from the present study



would appear to suggest that those interactions the coaches' engaged would in most instances be more accurately conceived of as information knowledge networks. These have been described as networks of coaches who, "know one another and exchange information, but these discussions are loose and informal because there is no joint enterprise that holds them together" (Culver & Trudel, 2006, p. 101).

Another valuable theoretical lens that could help explain how the coaches' learnt from practical experiences is that of reflection (Schön, 1983, 1987). The coaches in the present study were, for example, found to learn from their critical consideration of practical coaching experiences. Research by Gilbert and Trudel (2001) has served to demonstrate that interactions also play a central role in coaches' reflective conversations. Therefore, theory of reflection might help to explain how the coaches in this investigation integrated understandings acquired from athletic experiences and self-study into their coaching practices. Practical drills, tactical approaches, and coaching behaviours, amongst many other things experienced as an athlete, could all potentially be drawn on to inform strategies devised in an attempt to overcome coaching issues. Information acquired from new or ongoing self-study could also be used at the strategy generation phase.

The coaches in this study were also shown to learn from engaging in self-study that included the reading of printed text, accessing the Internet, and watching commercially produced media. Knowledge acquired from these learning sources could conceivably underpin strategy formation decisions. While knowledge gained from self-study, interactions, and education, could all potentially contribute towards coaches' reflective conversations; there is a need for coach learning research to shift from the identification of learning *situations* to the investigation of *process*.

Investigations into learning situations, such as the present study, have elicited useful information about the diverse sources that coaches' access to acquire their understanding. It does not, however, provide significant insight into how this process occurs. Gilbert and Trudel's (2001) model of experiential learning has started to address this issue, but it focuses on how coaches learn from practical coaching experiences. The present study demonstrated that coach learning extends far beyond the practical coaching context. So further consideration needs to be given to how coaches learn in these various situations.

One theoretical framework that could potentially address this issue is Jarvis's (1987, 2004, 2006a, 2006b) theory of learning. According to Jarvis' theory, while all



learning results from experience, not all learning can be considered reflective. Jarvis discovered from his research that learning occurs through either primary (i.e., personally experiencing practical situations) or secondary (i.e., through a representation of someone else's experience) experiences taking place in formal, nonformal or informal situations. Learning that occurs in these situations can also be identified as being intended or incidental and broadly categorised under three types of learning. He labelled these as *Non-learning* (i.e., rejection and non-consideration of information), *Non-reflective learning* (i.e., replicating skills and memorising information), and *Reflective learning* (i.e., carefully considering the knowledge, beliefs, values, skills, etc that the experience presents).

Jarvis's theoretical framework would appear a useful explanatory tool, as the coaches in the present study were found to have learnt in formal, nonformal, and informal situations. The sources that these coaches accessed could also be considered primary (e.g., athletic experiences; coaching experiences; watching coaches and athletes) and secondary (e.g., information delivered at formal courses, conferences, and workshops; interactions; reading of printed texts; watching of commercially produced multimedia) experiences. In light of Jarvis's theory, the coaches' learning could also be considered intended (e.g., learning from the materials presented during coach education courses) and unintended (e.g., informal interactions with other attendees of courses, conferences and workshops). Evidence will also be presented demonstrating that the coaches in the present study identified previous understandings as a barrier that can cause non-learning to occur (see the *Coach Learning Motives & Deterrents* chapter pp. 108-123). The coaches were also shown to reflect on their practical coaching experiences. While non-reflective learning was not directly evidenced in the present study, it might be argued that traditional training exercises have by design largely focused on and promoted non-reflective learning, by requiring coaches to memorise factual information and replicate 'gold standard' coaching models (Abraham & Collins, 1998). Social reproduction of the coaching process and coaching practice (Cushion et al., 2006; Cushion, 2007a) seemingly presents another example that illustrates non-reflective learning is occurring. It is therefore apparent that coach learning research now needs to extend beyond the identification of learning situations to the investigation of how coaches learn in these situations.



## *Conclusions & Future Directions*

The purpose of this chapter was to establish the underpinning knowledge of coaching practitioners and to identify the sources through which they had acquired this. The chapter opened by providing a descriptive analysis of my data by comparing findings of the present study to that of previous investigations. This was followed by a critical discussion that drew on relevant theory in an attempt to make sense of my discoveries. Abraham et al.'s (2006) typology was shown to be a useful conceptual framework, as it was found to assist in making sense of the coaches' knowledge data. It should be noted, however, that a further three themes (*Health and Safety, Information Technology, and Legal Requirements*) emerged, the association of which was not evidently apparent. Further research is therefore required to distinguish whether these, and any additional knowledge categories, should supplement or be incorporated within Abraham et al.'s (2006) original typology.

Although identifying the coaches' underpinning knowledge structures is a necessary and important first step in developing a more detailed understanding of this aspect of coach learning, future studies should also strive to examine how these distinct areas of understanding interact to develop domain-specific coaching knowledge (Nash & Collins, 2006). It would also seem important to investigate how coaches use this information to inform their everyday practices within the coaching process (Irwin et al., 2004). It is envisaged that research of this nature could potentially be achieved using a range of methods that could include stimulated recall, diaries, ethnographic observation and interviews.

Coombs and Ahmed's (1974) typology was also shown to be a useful conceptual framework, as it was found to assist in making sense of the coaches' learning situations data. Discussion of these findings demonstrated that the coaches had attended various formal and nonformal events throughout their careers, but these were often relatively short in duration, conducted off site, and infrequently attended. It came as little surprise therefore to discover that the coaches supplemented their learning by engaging in a multitude of informal endeavours, which included various forms of self-study, interaction, and learning from practical coaching experiences. It was also discovered that learning to become a coach actually occurred prior to consciously deciding to enter the profession. While the coaches recognised that a considerable amount of useful knowledge can be acquired as an athlete, it was

reported that the knowledge gained during this period could prove limiting in certain cases.

Research into the identification of learning situations has undoubtedly helped further our understandings of coach learning. It was argued, however, that coach learning investigations now need to give greater consideration towards process. Jarvis's learning theory was identified as a theoretical framework that could potentially guide the analysis of future studies. While Gilbert and Trudel's (2001) experiential learning model has advanced understanding about how coaches learn from practical coaching experiences, evidence in the present study demonstrated that learning occurs in a range of situations. The process of learning across these situations therefore needs to be examined. In order to generate a more in-depth understanding of the learning processes that coaches engage, it is envisaged that longitudinal research using, for example, diaries, interviews and observations could be employed to track practitioners learning experiences for an extended period of time. Having considered the types of knowledge the coaches' possessed and the sources they accessed to gain further understanding, it seems appropriate to now explore those factors that drove and inhibited their coach learning engagement. Motives and deterrents are the focus of the next chapter.



## Chapter 5: Coach Learning Motives & Deterrents

### *Introduction*

The purpose of this chapter is to examine the participant coaches' perceived learning motives and deterrents. These aspects are investigated because research in other domains has served to demonstrate that an appreciation of motives and deterrents can help to further understand the learning of practitioners (see the *Learning Motives* subheading of the *Review of Literature* p. 33). Research conducted in coaching, however, has tended to focus on those factors deterring practitioners from participating in coach education and what incentives might encourage coaches to engage in more courses (Sports Coach UK, 2004; Vargas-Tonsing, 2007). While this has elicited insightful data that coach educators could usefully draw on, there has been little consideration of learning in its broadest sense or what has motivated and deterred coaches with considerable learning experiences (see the *Learning Motives* subheading of the *Review of Literature* p. 33). In order to start addressing these issues, the chapter is organised into three distinct sections: (1) Results and analysis, (2) Discussion, and (3) Conclusions and future directions.

The first section focuses on comparing my findings to that of similar research on learning motives and deterrents conducted in other domains. Following this initial discussion, relevant theory is drawn on in an attempt to help explain my findings at a broader level. Having inductively grouped the lower order themes into broader categories, learning of Knowles et al.'s (2005a) distinction between internal (i.e., the desire for increased job satisfaction, self-esteem, quality of life, etc) and external (i.e., better jobs, promotions, higher salaries, etc) adult learning influences informed my labelling of the two identified higher order themes. Theory of self-actualization (Goldstein, 1939, 1947; Maslow, 1962, 1970, 1971; Rogers, 1959; 1977) is drawn on as a framework to explain my findings. As a theory of motivation, self-actualization has been widely acknowledged in the learning and education literature (e.g., Curzon, 2004; Hillier, 2005; Legge, Harari, & Haran, 2000; Merriam & Caffarella, 1999). It has also informed the writings of adult learning theorists (e.g., Knowles et al., 2005a; Jarvis, 2004, 2006b). The labelling of inductively analysed themes relating to learning deterrents, on the other hand, was informed by Cross's (1981) typology (i.e., situational, institutional, & dispositional) of learning barriers (see the *Data Analysis*

subheading of the *Methodology* chapter p. 67). Again, these categories seemingly aligned with the themes identified in the present study, so it was considered to be a useful conceptual framework. While barriers to learning have often been overlooked by learning theorists (Illeris, 2008), those that have discussed this process are drawn on to help explain my findings (Illeris, 2008; Knowles et al., 2005a; Rogers, 1969, 1977). The chapter concludes with a brief overview of the discussed findings, before offering suggestions for future research.

## *Results & Analysis*

### *5.1 Coach Learning Motives*

Analysis of the motivation data revealed 8 learning motives that were categorised under the higher order themes of Internal Drive and External Influences (see Table 4.0 pp. 70-71). Each of these will now be collectively discussed under their respective higher order themes. It is to the internal motives that attention will first turn.

#### *5.1.1 Internal Drive (93 Meaning Units)*

Building on research in other domains, these coaches were also internally driven to pursue additional learning (Garst & Ried, 1999; Laszlo & Strettle, 1995; Ryan, 2003). A central component of this tendency was a desire to continuously enhance their ability to coach. Participant coaches ( $n = 37$ ) in the present investigation reported that they engaged in learning to increase their knowledge base and enhance their coaching practice:

I constantly seek to expand and develop my knowledge. (C13)

To continually update and enhance my knowledge so that I can be an even better coach. (C36)

It's just looking for an edge. Looking for something else to add in.  
That's my personality, you know, just looking to get additional knowledge really. (C86)

The coaches' desire to continuously advance their understanding and delivery, in an attempt to realise their potential, was acutely apparent and succinctly captured by one



of the respondents who described the learning process as, “a constant quest to be a better coach than I was yesterday” (C35).

A desire to keep abreast of current trends was also identified by 20 participants:

To regularly keep up-to-date with modern trends and new ideas from the whole spectrum of the sports fraternity. (C9)

To make sure that I am up to date with current coaching trends. (C19)

To continue learning about new and improved methods of coaching and associated components. (C46)

These coaches saw continuous coach learning engagement as an essential process that presented opportunities to acquire new ideas and alternative approaches, thus allowing them to “stay at the cutting edge” (C44). Research in other domains has demonstrated that workers purposely engage in ongoing learning in an attempt to acquire vocationally related information (Dia et al., 2005; Ryan, 2003). They do this to facilitate their providing enhanced levels of service to their clients (Cervero, 1981; Garst & Ried, 1999; Gunn & Goding, in press; Langsner, 1993; Laszlo & Strettle, 1995; Smith & Burgin, 1991). Similarly, then, participants in the present study wanted to enhance their understanding, and stay at the cutting edge, so that they could become better coaches to their athletes.

A desire to enhance the quality of their coaching was further evidenced by the finding that coach learning engagement was, at least, partially driven by a wanting to optimise their athletes sporting experiences. These coaches ( $n = 16$ ) derived significant satisfaction from seeing their athletes take pleasure from participation and the development of enhanced sporting prowess. Conversely, coaches felt disappointed when they were lacking the appropriate level of knowledge and skills required to effectively facilitate their athletes’ development:

It’s obviously to make them, the players, as good as they possibly can...I get huge satisfaction from seeing players enjoy themselves

and improve here...I'm never going to be just wanting results all the time...that's never been my drive and ambition. My drive, of course, is to make that person a better player...I'd always hope that anybody leaving a club that I've been at to say, 'I'm a much better player now'. (C87)

I just want to know that every single person I coach I can help. That I can make them better. I suppose it would be fair to say that when I've struggled with players, particularly in the past when I was less capable, they were hurtful experiences, you know, and I thought, 'I don't want that'. (C90)

So the data suggested that the participant coaches were motivated to engage in ongoing learning in an attempt to avoid incompetence, while optimising their ability to provide environments that were enjoyable and maximised athletic development.

A desire to pursue their passion for learning more about their sport, and topics related to the coaching of it, were also identified by 13 participants:

I believe that people have to have a passion in life. It might be sport. It might be the arts. It might be whatever. Sport is my passion. (C78)

I find it (coach learning) very stimulating from a personal point of view. (C82)

I would say it's (coach learning) a massive pleasure. Learning these new things is wonderful. I find it just so gratifying to be able to learn. (C90)

Two terms employed when describing this included a sense of "enjoyment" (C66) and "personal satisfaction" (C43) that their coach learning engagement brought about. Investigations in the professional learning literature, and adult learning literature more broadly, have consistently reported that some participants simply enjoy the process of learning (Dixon, 1993; Gunn & Goding, in press; Houle, 1961; Laszlo & Strettle,



1995). Evidence from the present study builds on this by demonstrating that a proportion of the coaches in this sample had a passion for learning about coaching.

Another discovery comparable with previously reported findings was that a small number of participant coaches ( $n = 5$ ) stated that they purposely attended CPE to interact with other attendees (e.g., Boshier & Collins, 1985; Cervero, 1981; Houle, 1961; Morstain & Smart, 1974). It has already been shown that some of these coaches attended workshops and conferences with the perception that they were likely to learn more from informal discussions with their peers, than from the formally presented content (see the *Coaches' Knowledge Structures & Learning Sources* chapter pp. 76-107). As such, these avenues were viewed as ideal opportunities to “meet and mix with fellow coaches” (C44), in order to “exchange ideas” (C38).

In summary, the evidence suggested that these coaches were internally driven to learn. Coaches were found to have a desire to enhance their understanding, keep abreast of current trends, and optimise the level of coaching that they could provide to their athletes. Learning about coaching was even considered a passion for some. While the majority of identified motives were internal in nature, there were some additional external factors that also motivated coach learning engagement. These external factors will now be analysed.

### 5.1.2 *External Influences (15 Meaning Units)*

Five performance coaches stressed that learning was at least partially pursued in an attempt to obtain competitive success:

Over the last 6 years I've won medals in every major championship that I have been to and not just one, but several medals. We won 6 European Championships in a row, which is a record. So it's my job to keep ahead of the game...in order to keep us ahead of the rest of the world, in order to keep on winning these medals. I'm very competitive. I want to win those medals each time we go to a championship...I wouldn't be happy until I can come home with all the medals. (C82)

You can nancy around talking about getting the best out of athletes and all that kind of crap. [But] you want to get through to the final

and get medals and beat people. You want to make your people (athletes) look the best. It's what I'm measured by. It's also what I measure myself by. (C83)

It would appear that these coaches ultimately judged the quality of their coaching by the performance outcomes of their athletes. The relevance here being that they measured the success of their respective coach learning endeavours in terms of their athletes' competitive achievements. So the pursuit of external rewards was driving their coach learning engagement.

Five coaches also identified employment and monetary rewards as reasons for participating in coach learning. It was, for example, suggested that the gaining of coaching qualification provides, "employment opportunities" (C15). The statement of another coach suggested that the actual attendance of CPE offered him networking opportunities for sourcing future employment: "I want to attend any of these courses because...someone will see me and give me a job" (C84). Having gained employment, the comments of yet another coach suggests that learning was completed to enhance the likely return of his athletes, due to the level of coaching he could subsequently provide: "If I am giving a coaching session to someone...I want to make sure that they want to come back, because the better I get the more likely my clients are to come back and the more money I earn. And the more money I earn, the more comfortable I can be in life" (C82). While the comments and experiences of these coaches are likely context dependent, and influenced by the sporting culture in which they work, it would appear that monetary rewards associated with employment, and the gaining of it, are external factors that can influence engagement in coach learning.

A small number of coaches ( $n = 5$ ) also suggested that their motivation to engage in learning was externally imposed. The findings of the present study therefore suggest that NGBs are starting to make the evidencing of CPE a mandatory requirement for certification retention: "It's (CPE) now a requirement to retain your licence" (C38). This arguably represents an attempt by governing bodies of sport to develop coaching as a profession by utilising a model implemented in other more established professions.

So it would appear that there are external factors that motivated some of the coaches' engagement in coach learning. While the pursuit of competitive athletic



success drove some of the coaches' engagement in learning, it was nonetheless mentioned by a only handful of practitioners coaching elite level athlete and could resultantly prove to be a dynamic most prevalent in this group of coaches. Additionally, it would seem that the evidencing of CPE completion is also becoming an enforced requirement.

Although it was not the purpose of this study to measure the significance attached to each motive, a direct comparison between the number of meaning units contributing towards internal (93 Meaning Units) and external (15 Meaning Units) factors would appear to suggest that coaches, like professionals in other domains, generally attached less significance to learning for material rewards, professional advancement, and financial gain, than to internal motives (Dixon, 1993; Langsner, 1993; Smith & Burgin, 1991). Having analysed findings relating to coach learning motives, I will now explore those factors that deterred the coaches from engaging in additional learning endeavours.

## *5.2 Coach Learning Deterrents*

Coaches were also asked to identify factors that had deterred them from engaging in coach learning. Lower order themes were inductively identified and grouped under the higher order themes of Situational, Institutional, and Dispositional Barriers (see Table 4.0 pp. 70-71). Each of these will now be separately discussed under their respective higher order theme. Situational barriers will be focused on first.

### *5.2.1 Situational Barriers (70 Meaning Units)*

The participant coaches identified three barriers to learning that were of a situational orientation. Cross (1981) defined situational barriers as those, "arising from one's situation in life at a given time" (p. 98). Adult learning literature has identified time and money as the most frequently reported barriers (Cross, 1981; Dixon, 1993; King, 2004; Sussman, 2002). Evidence from the present study demonstrated that these coaches also cited a lack of time ( $n = 37$ ) and money ( $n = 24$ ) as barriers to their respective learning. These two barriers collectively accounted for the large majority (63%) of the total received responses. This finding builds on those of Wright et al. (2007) who reported that coaches sometimes lack the time and money required to engage in additional coach learning.

Time was the most frequently stipulated of all the barriers identified and was considered to be “at a premium” (C12). As the following quotations demonstrate, these coaches felt that managing the coaching process was so consuming that finding time to concentrate on CPD was often extremely difficult:

I think time is the biggest issue... You need time to do professional development... You could probably do with one day a week. Everyone is busy, so it's difficult to get that... You get to the point where you actually need less coaching, so you have more development time. (C81)

The biggest barrier is the fact that you're coaching. You're responsible for athletes day to day and you tend to worry about time wasting. 'Can I go away and do this for a week or a few days?' 'But what are my athletes going to do while I'm doing that?' 'But I might learn something!' (C83)

It would therefore appear that the ongoing learning of these coaches, like practitioners in other domains, had been constrained by work related pressures (Armour & Yelling, 2007; King, 2004; Langsner, 1994; O'Sullivan, 2003). Engaging in the coaching process, however, was not the only factor competing for the coaches' time, as participating in the delivery of coach education, having a second form of employment, and finding time for the “family, holidays, other interests and commitments” (C57) were also identified.

The associated expenses of engaging in coach learning was also acknowledged by the respondent coaches as being a significant barrier to their learning endeavours. As the following quotation demonstrates, the indirect costs associated with engaging in coach learning can perpetuate this barrier: “if I go away for a day I don't get paid for that day” (C82). Hence it would appear that coaches have to factor the global costs (potentially including travel, accommodation, consumables, learning materials, unpaid leave, and course costs, amongst other things) associated with any coach-learning endeavour when deciding on its suitability. When questioned as to how learning had been financed, the responses suggested that the coaches had engaged in a combination of self-funded (64 Meaning Units) and



partially or fully funded activities (50 Meaning Units). The later group comprising of financial support gained from their NGB, club, academic department of work, local council, and Sports Coach UK (see Table 4.0 pp. 70-71). This evidence demonstrates that while some CPD funding had filtered its way down to these coaches, the level of financial support received would appear not to have been enough to stop financially related issues being perceived as a barrier to further learning.

### *5.2.2 Institutional Barriers (12 Meaning Units)*

The coaches identified two institutional barriers, namely restricted access onto NGB awards and the geographical location of CPE. Institutional barriers are according to Cross (1981), “all those practices and procedures that exclude or discourage working adults from participating in educational activities” (p. 98). Findings in this section therefore relate specifically to the participant coaches formal educational experiences, and do not include reference to learning in informal situations.

A number of developmental coaches ( $n = 9$ ) in the present study suggested that the higher-level awards of their NGBs certification programme were unobtainable, due to restricted access favouring elite level performance coaches:

I (a participation coach) have been a level 3 coach since 2003. I have been unsuccessful in 3 attempts of applying for level 4. I have received poor feedback and no pathway for entry. (C46)

Coaches can't get from level three to level four because it becomes very selective and X gets picked and not Y. Well why is that? Is that a really clear transparent pathway? I think having a much more accessible coaching programme where there are regular courses [is required]. (C84)

These data would therefore appear to be suggesting that in certain instances NGBs have been acting as educational gatekeepers, deciding who can and cannot gain access to these higher-level awards. Like the coaching process, then, it would seem that coach education is also a politically and power dominated activity that can constrain coach learning engagement. At the core of this issue are questions about whether all coaches are capable of meeting the demands of these later awards and whether or not

there should be access for all. Consideration need also be given to the potential consequences of denying practitioners from engaging in additional formal education. Access would appear to be an issue that warrants further debate.

Three of the coaches also identified that the geographic location of courses had proved problematic (i.e., a relatively long distance between the course destination and the coaches home residence). Moreover, the provision of localised courses was identified by the participant coaches as an essential ingredient of effective coach education (see *The Effective (Ineffective) Provision of Coach Education* chapter pp. 124-144). The accessibility of courses is one of the most frequently cited institutional barriers in the adult education literature (Cross, 1981; Sussman, 2002). It would appear that this could also be a factor within coach learning. Indeed, this finding runs parallel to that reported by Sports Coach UK (2004) who found that a lack of locally run courses could partially explain non-participation in coach education.

### *5.2.3 Dispositional Barrier (8 Meaning Units)*

One category emerged from the unstructured data that was distinguishable as a dispositional barrier. Dispositional barriers are, “those related to attitudes and self-perceptions about oneself as a learner” (Cross, 1981, p. 98). Analysis of these quotations suggested that this group of comments ( $n = 8$ ) was best described as being closed minded to additional learning:

The coach needs to want to learn new ways and innovative ideas.  
(C26)

Many coaches think they know it all and are not open to new ideas.  
(C36)

The only thing is your imagination, personal creativity, desire, thirst for knowledge, and to improve to make yourself and the athletes you work with better. (C75)

These coaches were suggesting that additional learning could be constrained as a result of internal processes restricting the pursuit or acquisition of new understanding.



So it would appear from these findings that the coaches experienced situational, institutional, and dispositional barriers. While the later two categories were identified, analysis of the responses demonstrated that a lack of time and money were by far the most prevalently reported. While 6 deterrents were identified, it should be noted that seven coaches suggested that they perceived there to have been no barriers to their ongoing learning.

### *Discussion*

Data pertaining to learning motives suggested that while these coaches were influenced by external factors, an internal drive was often the most potent motivator. So evidence from the present study builds on the broader observations of adult learning theory (Knowles et al., 2005a). The findings in this case can perhaps be best understood in terms of the theoretical proposition of self-actualization. Theory of self-actualization was first proposed by Kurt Goldstein (1939) who described it as “the need to complete incomplete actions” (p. 168). For Goldstein the force driving self-actualization is the experiencing of imperfection, whereas its goal is the fulfilment of a given task. According to Goldstein, “The nearer we are to perfection, the stronger is the need to perform.” (p. 168). From a coaching perspective then, coaches have a desire to continually enhance their coaching practice.

While this concept can be tracked back to Kurt Goldstein (1939, 1947), its most widely recognised proponent has arguably been Abraham Maslow (1962) who placed the obtainment of self-actualization at the top of his hierarchy of needs. Maslow (1970) loosely described self-actualization as, “the full use and exploitation of talents, capacities, potentialities, etc” (p. 150). Central to this concept then is ongoing self-development. Maslow (1971) went on to describe self-actualization as a continual process of using one’s abilities and intelligence in an attempt to, “do well the thing that one wants to do” (p. 48).

Both of these authors influenced the thinking of the American psychologist Carl Rogers. However, whereas Maslow saw actualization as a state that could be attained, Rogers (1959, 1977) viewed it as something that organisms were continuously striving towards (Bohart, 2007). For Rogers (1977) a tendency towards self-actualizing drives all human behaviour including that of learning. Indeed, Rogers (1969) was of the opinion that humans have a natural potentiality for learning that is driven by this tendency towards self-actualization (Patterson, 1973, 1977). He

therefore advised facilitators of learning to build education around the actualizing tendency (Rogers, 1969).

Similarly, learning theorist Peter Jarvis (2004) has more recently argued that, “human beings have a basic need to learn” (p. 38). Jarvis (2006b) has gone on to contend that our existence as human beings is fundamentally the process of “realising what we might become” and argues that “being is always becoming” (p. 5), which is achieved through the process of learning. For Jarvis, then, learning is also considered to be a fundamental life process that allows individuals to develop themselves.

In light of this, it could be suggested that these practitioners were in the process of continuously striving to become better coaches. The participants’ desire to learn was therefore driven by a tendency towards self-actualization. They were, in short, trying to actualize their ability to coach. To achieve this, the coaches engaged in continuous learning in an attempt to acquire additional understanding that would enhance the level of coaching that they could provide to their athletes. While an internal drive was the most apparent coach learning motivator, external influences were also identified.

The external coach learning influences identified by these practitioners included the pursuit of extrinsic rewards resulting from athletic success, employment opportunities arising from the attendance of CPE, and monetary rewards associated with the gaining and maintenance of employment. In addition to these factors, 5 coaches also stated that CPE engagement was externally enforced, as the evidencing of attendance had become a mandatory requirement for certification retention. This finding builds on an earlier investigation that also highlighted that CPE is becoming a mandatory requirement in Canada (Wright et al., 2007).

While the findings of the current research project demonstrated that these coaches were motivated to continually develop, it was also discovered that this internal drive could be, at times, deterred by a number of learning barriers. The coaches in this study were found to have experienced situational, institutional, and dispositional barriers to coach learning. The coaches in this study most frequently reported time and money as having restricted further participation in learning activities. The identification of these two situational barriers would appear legitimate reasons, as adults are often busy people trying to become or remain economically solvent, while taking care of themselves and their families (Merriam & Caffarella,



1999). So employers, NGBs, and providers of coach education, amongst other key organisations, arguably need to give further thought towards how these key deterrents could be alleviated. It seems important that consideration also be given to the broader issue of a coaching workforce comprising almost entirely of voluntary and part-time practitioners, as these factors would appear inextricably linked (Kay et al., 2008).

Inappropriate location and an inability to access higher-level coaching awards were identified as institutional barriers. Limited access onto higher-level courses might be explained by the structuring of NGB certification programmes. It has been suggested that many of these have been designed on the misinformed belief that coaches naturally start with the coaching of juniors in participation environments and incrementally develop towards the coaching of senior athletes in performance environments (Lyle, 2002). A quick glance into the 'real world' of coaching, however, soon presents many examples of ex-elite athletes that have transferred directly to coaching in senior performance environments. There are also many coaches who have little intention or desire to take charge of elite athletes, preferring instead to hone their knowledge and skills towards becoming proficient participation or development coaches. Having completed their NGBs initial awards, it might be hypothesised that the second group of coaches have been faced with a limited set of options, as the later awards were not specifically designed for their intended career pathway. Nonetheless, it would appear that these coaches have been applying to register on the higher level awards, in acknowledgement that they represent the only remaining form of sport specific education available to them. One might therefore assume that this has resulted in an over subscription, causing NGBs to reject such applicants on the premise that these courses were not intended for this group of coaches. In recognitions of such issues, a four level by four-domain model has more recently been adopted within the new UK coaching framework, which should help overcome this problem by allowing both vertical and horizontal development (Kay et al., 2008).

The dispositional barrier of being closed minded to additional learning was also identified. This finding can perhaps be explained by adult learning theory, which suggests that by virtue of their years, adult learners typically accumulate a vast amount of experience that has several consequences for the process of learning (Knowles et al., 2005a). While these experiences often provide valuable learning material, it has been suggested that it can also restrict additional learning in some



instances. Knowles et al. (2005a) have noted for example that, “as we accumulate experience, we tend to develop mental habits, biases, and presuppositions that tend to cause us to close our minds to new ideas, fresh perceptions, and alternative ways of thinking” (p. 66). Illeris (2007) similarly argues that any new learning has to directly compete with already acquired understanding. He concludes as a result that, “in practice the issue of learning very often becomes a question of what can penetrate the individual, semi-automatic defence mechanisms and under what conditions” (p. 96). Cushion et al. (2003) have presented a comparable argument when suggesting that it would be naïve to believe that coaches in attendance of coach education are waiting to be filled with professional dogma. Instead, they contend, coaches arrive with a set of beliefs and dispositions that are tempered by years of sporting experiences, which act as filters to the principles that educators are attempting to instil.

These propositions share many similarities to that offered by Rogers (1969) who contended that humans are “ambivalently eager” to learn (p. 157). He went on to explain that, “the reason for the ambivalence is that any significant learning involves a certain amount of pain, either pain connected with the learning itself or distress connected with giving up certain previous learnings” (pp. 157-158). This might be understood in terms of how experiences in the field can cause coaches to develop strong professional identities. Chesterfield et al. (in press), for example, recently suggested that these professional identities provide coaches with a ‘personal interpretive framework’, which shape their thoughts about coaching practice and their analysis of new knowledge, others practices, and their own behaviours. Well established ‘subjective theory’ and ‘personal interpretive frameworks’ built over many years may, therefore, be highly impenetrable and lead to practitioners that are resistant to new learning. So as part of the broader process of coach learning, it would seem that non-learning, somewhat paradoxically, should also become a legitimate topic of investigation. The findings of such research would likely have significant implications for the delivery of coach education, as well as our understanding of coach learning more broadly.

### *Conclusions & Future Directions*

This chapter aimed to examine the participant coaches’ perceived learning motives and deterrents. The chapter opened by providing a descriptive analysis of my findings in relations to those of previous studies in other domains. This was followed by a



critical discussion that drew on relevant learning theory in an attempt to explain my data. The results demonstrated that both motives and deterrents influenced the coaches' participation in their respective learning endeavours. Eight distinct motives were identified that broadly related to the coaches having an internal drive to learn and being influenced by external factors. Consistent with the reports of research in other domains, and adult learning theory more generally, the findings of the present study suggested that these practitioners, while influenced by external factors, were largely internally motivated. These findings were explained by the proposition that learning is a natural function of the human organism, which is striving not only to maintain but also enhance itself in an attempt to actualize its potentialities. These coaches were, in short, trying to actualize their coaching potential.

While it was apparent that these coaches were motivated to engage in ongoing learning, deterrents to further participation were also identified. The results pertaining to coach learning deterrents demonstrated that these practitioners highlighted 6 distinct barriers that conceptually aligned with those of Cross's (1981) typology. While both institutional and dispositional barriers were identified, the situational barriers of a lack of time and money were both reported as being the most prevalently experienced deterrents. Without wanting to detract from the importance of these findings, Cross (1981) warns us that any such results should however be treated with slight caution, as these are socially acceptable reasons for non-engagement. It is possible that some of the coaches may have provided these responses despite there not being an accurate representation of their experiences. The studying of practitioners possessing substantial learning experiences also meant that the present investigation was by design likely to limit the potential for eliciting dispositional barriers. Further understanding of this area would almost certainly have evolved if the study were to have instead specifically investigated the reasons inactive coach learners give for their lack of curiosity. Additional investigations utilising alternative methodologies are therefore required to further substantiate, and build on, findings of the present study.

While gaining coaches' perceptions about their learning motives and deterrents has proven a useful starting point, studies examining coach learning experiences and behaviours in process would now be encouraged. It is possible that the investigation of social structures could also reveal a diverse but complementary set of explanations that would likely further our theoretical understanding of coach learning. It has been suggested, for example, that the most comprehensive and robust

explanation of participation is likely to evolve from consideration of both the psychological and sociological perspectives (Marriam & Cafferalla, 1999). Recent research has, for instance, demonstrated that women, ethnic groups, and the lower social classes, are all underrepresented not only in the UK coaching fraternity (Sports Coach UK, 2004, 2007), but in other countries also (see Trudel & Gilbert, 2006). This is likely to have considerable implications for non-participation in coach learning. The evaluation of such factors would resultantly offer a valuable dimension to this new area of coach learning enquiry. Having identified the types of knowledge underpinning coaching practice, sources through which this understanding is acquired, and those factors motivating and deterring engagement in coach learning, I would now like to explore perceptions about how the provision of coach education might be best enhanced. So it is to the topic of coach education that I will now specifically turn.



## **Chapter 6: The Effective (Ineffective) Provision of Coach Education**

### *Introduction*

This chapter aims to provide an in-depth exploration of the participant coaches' experiences of effective and ineffective coach education provision and perceptions about how its delivery could be enhanced. This area is explored because research has demonstrated that formal coach education provision has been far from optimal (Abraham et al., 2006; Chesterfield et al., in press; Irwin et al., 2004; Jones et al., 2004; Lemyre et al., 2007; Wright et al., 2007). While an increasing number of prescriptions for better coach education have been presented, these have often been arguments *for* rather than evidence *of* (Lyle, 2007). One way this could arguably be addressed is by asking coaching practitioners how they perceive that coach education could be enhanced (see the *Review of Literature* p. 29). This, however, remains a vastly under researched area, the data of which have been collected exclusively from coaches practicing in Canada and the United States (Bloom et al., 1995; Gould et al., 1990; Salmela, 1995; Wiersma & Sherman, 2005). The experiences and perceptions of UK coaches have remained largely unexplored. So the transatlantic validity of these earlier findings needed investigating. While the findings of these studies have provided valuable insight, they have also tended to be descriptive (see the *Review of Literature* p. 29). This chapter addresses these issues and is divided into three sections: (1) Results and analysis, (2) Discussion, and (3) Conclusions and future directions.

Initially, the focus is on providing an overview of the respondents' experiences and perceptions in comparison to the findings of research previously conducted in the domains of coach education and CPD more generally. The findings are then discussed primarily, but not exclusively, in relation to the concept of person-centred education. Here, the analysis is principally grounded in the work of Carl Rogers (1951, 1961, 1969, 1977, 1980), whose theory has been widely acknowledged in the education literature (e.g., Curzon, 2004; Jarvis, 2004; Knowles et al., 2005; Legge, Harari, & Haran, 2000; Merriam & Caffarella, 1999; Palmer, Cooper, & Bresler, 2001). Rogers's work was selected because the educational approach advocated by his theory was in-line with many of the aspects described and proposed by coaches in the present study. So his theory offered a framework for helping explain

the coaches' responses. This is not to suggest that other theoretical frameworks are unable to help further understand elements of the presented findings. Having read the works of numerous key theorists (Bandura, 1977; Bruner, 1960; Dewey, 1910, 1916, 1938; Freire, 1970; Kolb, 1984; Knowles et al., 2005; Lave & Wenger, 1991; Schön, 1983, 1987; Wenger, 1998), however, Rogers's work seemed best able to explain the findings of this study in their entirety.

The educational goals of Rogers's theory also appeared to be consistent with those more recently identified with the domain of coaching. Rogers (1951) stated that person-centred education aims:

...to assist students to become individuals who are able to take self-initiated action and to be responsible for those actions; who are capable of intelligent choice and self-direction; who are critical learners, able to evaluate the contributions made by others; who have acquired knowledge relevant to the solution of problems; who, even more importantly, are able to adapt flexibly and intelligently to new problem situations; who have internalized an adaptive mode of approach to problems, utilizing all pertinent experience freely and creatively; who are able to cooperate effectively with others in these various activities; who work, not for the approval of others, but in terms of their own socialized purposes (pp. 387-388).

This would appear, for example, to be in-line with Cushion et al.'s (2003) call for the development of, "imaginative, dynamic, and thoughtful coaches" (p. 216). It also reflects Jones' (2000) argument that:

...coaches should be encouraged to develop their independent and creative thinking skills, particularly in relation to meaning-making, problem solving and integrating and reflecting upon knowledge and skills. The focus of coach education should, therefore, be shifted away from learning based on imitation and directed work, and be increasingly based on developing socially informed decision-making abilities (p. 34).



A central component of Rogers's theory is that educators should have a basic reliance on their students' tendency towards self-actualization. In light of this, Rogers argued that educators should base their practices, "on the hypothesis that students who are in real contact with problems which are relevant to them wish to learn, want to grow, seek to discover, endeavor to master, desire to create, [and] move toward self-discipline" (Rogers, 1969, p. 114). The participant coaches in the present study were shown to be internally motivated to acquire knowledge from a multitude of sources, in an attempt to further enhance their knowledge and practices (see the *Coaches' Knowledge Structures & Learning Sources* pp. 76-107 and *Coach Learning Motives & Deterrents* pp. 108-123 chapters). This seemingly provided further evidence in support of utilising Rogers's theoretical framework to make sense of these data.

Gusky's (2002) model for teacher change is also utilised and has been identified as a useful theoretical framework for understanding the professional development of physical education teachers (Bechtel & O'Sullivan, 2006). In the present study, Gusky's model was drawn on to help explain the importance that the coaches attached to demonstrations and practical experiences. The chapter ends with an overview of the discussed findings, before briefly outlining areas requiring further investigation.

### *Results & Analysis*

Coaches were asked to identify those components that they perceived from their experiences contributed towards the effective and ineffective provision of coach education. Analysis of these data revealed 12 lower order themes (see Table 4.0 pp. 70-71). Two of these will be separately examined (i.e., Educator Qualities and Enhanced Coaching Ability) and the remainder collectively discussed under the higher order themes of Active Learning, Appropriate Content, and Supporting Factors. It is to the educational outcome goal of enhanced coaching ability that focus first turns.

#### *6.1 Enhanced Coaching Ability (47 Meaning Units)*

While it might appear logical to end with an analysis of the desired outcomes associated with coach education attendance, I open with this category because its findings help contextualise many of those that follow. Ineffective coach education

was identified by participants ( $n = 18$ ) as that, “where little new material is offered” (C1), which fails to “challenge current thinking” (C19), and ultimately results in “needless repetition” (C30). Coaches ( $n = 22$ ) described effective provision, on the other hand, as being “thought provoking” (C24), either through the challenging of previous understandings or presentation of new concepts, and resulting in “skill development and knowledge acquisition” (C51). Building on earlier research into physical education, the respondent coaches attended coach education with a pragmatic desire to leave with a heightened understanding and ability to practice (Armour & Yelling, 2004b).

The following quotations provide further evidence that standardised syllabi can lead to the delivery of material with which coaching practitioners are already familiar (Gilbert & Trudel, 1999; Irwin et al., 2004):

They (coach education providers) don't take into account previous knowledge and previous understanding...I mean it's valuable to sit in there and listen...but I think time could be better spent. (C78)

When I did the level two award course...what I really wanted was a lot more detail. So saying, for instance, there was one module maybe an afternoon out of the 5 days on sports psychology. Now I've been into much more detail than they did on the course, and I didn't feel like I learned anything in particular out of that module...It wasn't tailored to me or my particular level...It doesn't do any harm to go over old ground, but it didn't really push me. I think as you go along you need to be challenged. (C80)

These findings suggest that further consideration needs to be given towards how repetition could be minimised and how learning might be best tailored to maximise the development of those practitioners in attendance of coach education. Linked to the notion of a practical outcome were discussions about the appropriateness of content.

## *6.2 Appropriate Content (97 Meaning Units)*

Coaches ( $n = 17$ ) described content as needing to be “interesting” (C8), “up-to-date” (C31), and most importantly “relevant” (C12). Ineffective content, on the other hand,



was described by participants ( $n = 15$ ) as, “covering too much ground” (C34) and having a “lack of relevance for one’s personal coaching situation” (C57). This was seen to result from, “not involving coaches in the planning of their CPD” (C46). It was suggested that quality coach education treats “every coach as an individual” and avoids “placing them in brackets” (C46). Effective education was therefore described as having, “relevance to my needs” and “helping me to improve my weaknesses” (C44). Nine respondents suggested that coach learners should actually be directly involved in decisions about what content is to be covered:

Ask the coaches what they want instead of deciding what they want. (C12)

Do not take an “us and them” stance. Find out precisely what coaches want to know and go the extra mile in gathering this information, packaging and presenting it effectively for them. (C59)

In short, then, it was being suggested that coach education should, “make the learning experience coach-centred” (C54). In addition to the relevancy of content, it was also stipulated that subject matter needed to be practically usable.

Usable content was referred to as information that can be “easily transferred to practical situations” (C53). Coaches ( $n = 12$ ) identified effective provision as striving to, “explicitly link theory and practice” (C15). Participants ( $n = 8$ ) viewed inappropriate provision, on the other hand, as providing “theory to which coaches cannot apply to practice” (C23). While it was recognised that “sitting in a classroom listening to theory has a limited value” it was stressed that the delivered content “must relate to practical application” (C35). As one coach put it, “seeing is believing” (C58). Findings of the present study therefore contribute towards a growing body of evidence demonstrating that practitioners, across a range of disciplines, want to attend educational endeavours that present concepts which they can apply to their working contexts (e.g., Armour & Yelling, 2004b; Bechtel & O’Sullivan, 2006; Deglau et al., 2006; O’Sullivan, 2006; O’Sullivan & Deglau, 2006; Sandholtz, 2002). In this regard, watching theoretical concepts applied to practical scenarios was thought to aid the

acquisition of knowledge and its integration into practice, as the following extracts demonstrate:

I like the idea of theory, somebody presenting something that teaches me the academic side. I can deal with that. Then the opportunity to ask questions and to see it out on the field. If I just had the theory bit, I would struggle to understand it and learn.  
(C84)

I was lucky enough to go on a week long UEFA coach education seminar in Barcelona when I first started my job...They cost a fortune but they are superb...Every morning you would start off with a high class deliverer in the conference suite and then you break and then you go and see that done in practical terms...In the afternoon you go back and had another high level discussion and then see that in practical terms...We (coach learners) are practical people, we want to see it, we want to see the proof of the pudding. I'm quite willing to learn from anyone, but I would actually like them to prove it to me by delivering it in a practical setting and then it makes more sense to me. Then I feel I can understand how I could use it and integrate it aswell. (C89)

Building on the findings of Wiersma and Sherman (2005), coaches ( $n = 14$ ) in the present study wanted relevant and useable content to be supplemented by high-quality “supporting material” (C31), such as DVD, magazines, reference lists, and Internet based learning resources. So evidence in this research suggests that coach educators need to give greater consideration towards the development of such materials and ensure that practitioners are provided with appropriate access to them. Comments from the following two coaches specifically suggested that the Internet could potentially offer an effective means of disseminating information and making coach education accessible to a wider audience:

I think we're missing something as far as use of the internet, or the website, for the dissemination of information or examples of good practice...I think there is no reason at all with broadband...Stream



stuff, download, whatever...I definitely think it's a way to go. You know, 'Here's the world champion doing a backhand clear. Here's a twelve year old kiddie doing the backhand clear. Can you see the problems?'...They can be running alongside each other. (C79)

I'd make use of new technology, you know, as I said the Internet. I think there's lots of things. Everyone's got a laptop. Many people have access to the Internet now. So there's all sorts of problem solving things you can send down [the Internet]. They (coach learners) don't have the expenses of coming to a venue. You can set them tasks with video analysis [and] stuff that they can do. (C89)

Whereas the proposal for Internet based coach education is not new (e.g., Stewart, 2006), it would appear that further discussion and research is required to identify how e-learning could be most effectively integrated into the provision of coach education. While appropriate content was identified as a significant component, those individuals delivering this material were recognised as being an equally important part of the educational process.

### *6.3 Educator Qualities (89 Meaning Units)*

Educators were identified as heavily shaping the coaches' perceptions and experiences of coach education. Coach educators considered to be extremely effective or ineffective left a long-standing impression on the participants. The importance attached to the educator is perhaps best demonstrated by its having gained the highest number of mentions of all the lower order themes.

Participants ( $n = 31$ ) identified ineffective educators as those that are "unprepared" (C73), possess "poor communication and presentation skills" (C46), and provide "poor demonstrations" (C31). Those who employ "too much bureaucratic jargon" (C35), feel that they "own the material" (C22), and are lacking in "detailed knowledge" (C53), practical "experience" (C12) and "status" (C46). Coaches ( $n = 31$ ) described effective educators, on the other hand, as being "well prepared" (C31) and effective "presenters" (C12) who are able to provide "good demonstrations" (C6). They were seen as individuals that exhibit "enthusiasm" (C65), "depth of knowledge"

(C23), and who are “able to relate the subject to their students” (C77). It was suggested that good educators are those “working at the cutting edge of their discipline” (C59), “experts” (C89) that while possessing “a lot of experience...will admit to making mistakes” (C87). It was suggested that while the sharing of understanding was imperative, it was also important for educators to “understand that it is only their opinion” (C22). So it would seem that these coach learners did not appreciate situations where educators have, “a particular agenda that they wish to ram down people's throats” (C59).

It was apparent that these practitioners respected those educators that had ‘been there and done it’ in reality and were able to effectively bridge the theory-practice divide. The following comment, however, demonstrates that practitioners can be less accepting of those educators lacking this practical experience:

I would stop academics talking to people that are working at the coal front, as they say, because there is a lot of rubbish talked. People just do not understand what it's like to be working with say thirty or forty athletes. That's very demanding on a day-to-day involvement. An academic will be wasting a lot of time. I have been on courses and have listened to academics talk about sports psychology, talk about management, and all that sort of stuff. And it's not relevant to what we have to deal with day in day out. I think I would much prefer to have people that have been through it, maybe other coaches that have been through that practical situation.  
(C87)

This finding arguably gives further evidence in support of claims that the narrow, rationalistic, and bio-scientific assumptions on which the existing body of knowledge rest are perhaps somewhat unrealistic and may not be adequately serving the coaching community (Cushion et al., 2006; Gilbert, 2007; Jones & Wallace, 2005; Mallet, 2007). At the very least this would seem to be suggesting that ‘academics’, in the purest sense, should be wary of over-claiming their level of ‘expertise’ and ability to provide simple solutions to what are often multifaceted problems. Instead, it would appear that educators should share material that takes into account, and is based around experiences of, the complex realities of coaching and the coaching process.



The educator qualities outlined by these coaches match those identified by physical education teachers (Armour & Yelling, 2004b). Moreover, they mirror many of those qualities that Nash's (2003) students' felt mentors should ideally possess (i.e., effective communication skills, knowledge of their sport, experience, approachability, and enthusiasm). So it would appear that the qualities associated with effective coach educators may be consistent across alternative positions. Coupled to these qualities were those activities that educators should employ to help further facilitate the learning of attendees.

#### *6.4 Active Learning (102 Meaning Units)*

Four themes emerged that were broadly categorised under the title of active learning. These were the need for group learning, practical experiences, mentoring, and multi-sport learning opportunities. In short, the practitioners in this case were urging educators to, "make courses interesting by involving coaches" (C23). Whereas coaches disliked occasions "where you are lectured to without time being given to discuss ideas" (C48), they enjoyed "those that were more interactive and practical" (C56).

These coaches ( $n = 22$ ) wanted less didactic teaching and greater "opportunity to share ideas and experiences with other coaching practitioners" (C15). This is consistent with the finding that these coaches had learnt much through formal and informal interactions (see the *Coaches' Knowledge Structures & Learning Sources* chapter pp. 76-107). The key difference being that they also wanted more opportunities to engage in focused discussions, where interaction is purposely facilitated in order to encourage further learning:

The ability to create debate in a lecture situation or in a coaching situation is very interesting. It makes people think for themselves, more than a straight lecture format. It knocks back your own beliefs, knocks back the position you go in there with, forcing you to think in a different way...making you reassess your own knowledge and your own delivery on those subjects. (C77)

It (an educational experience) put you in for two or three days, sometimes a week, put you in a room with eleven other coaches

and it gave you a chance to fire ideas around, and debate, and argue, which I think is important, and to see a different view. You can have some strong views on somethings and somebody will shoot you down and you will argue and you would have to compromise a little bit...it was very challenging like that. (C87)

These coaches were advising educators to “value the knowledge and experience that coaches bring to courses” (C15). This finding has built on those of Wiersma and Sherman (2005) who reported that the coaches in their study attached considerable importance to “roundtable discussions” (p. 332) for the sharing of understandings and drills. It has also provided further evidence in support of the discovery that coaches enjoy opportunities to engage in formalised group debate and find these experiences to be effective means of acquiring further understanding (Cassidy et al., 2006; Culver & Trudel, 2006; Knowles et al., 2001).

The following comments from two of the interviewed coaches have also provided evidence in support of recent calls for embracing problem-based learning (Cassidy et al., 2004; Jones & Turner, 2006):

I wouldn't be adverse to a group problem solving exercise you know. I would be quite happy just to sit down and just work through problems, situations, with other people. I think problem solving is important for coaches. (C86)

When I converted to an A licence, [the coach educator] did a problem solving session I'll remember till the day I die on my deathbed. It was phenomenal...It was due to go on from two to five and at seven o'clock we were still in there saying, 'Look please just cancel the dinner, we don't want to leave, we'll stay'...So more of that sort of problem solving stuff I think is vital, both in the class room and out on the field. I think it engages the learner more for a start and it also gives everyone a chance to have a say. (C89)

A smaller number of coaches ( $n = 9$ ) went on to suggest that this sharing of knowledge, experiences, and practices should not be solely confined to individual



sports, but should be inter-disciplinary in nature: “Allow practitioners to share good practices across sports and contexts” (C15). As the following quotations demonstrate, coaches that had experienced this were of the opinion that learning across sports enhances breadth and depth of understanding, by exposing coaches to a greater range of issues, environments, approaches, and experiences:

I think it's true in England now that everyone is trying to get level's 1, 2, 3, etc. When you get to level 4, I think that [coach education] should be cross sport, really. That should be in groups of sports, not sports specific, cause it's just perpetuating the knowledge that's inside your own sport. You're not bringing anything new into it. Otherwise you're never going to bring anything new into your sport. (C77)

One of the biggest learning opportunities I've had is this multi-sport, cross-sport opportunity...I would create a much more multi-sport, a multi-disciplinary, environment. I would expose golf coaches, even in their training programme, to other sports environments. And that isn't there at the moment. I think that you have a much broader and wider understanding of coaching in general [then]. If you only coach golfers, you know, your only exposed to their problems and to those issues...So I would actually make a final learning process to go and work in other environments. I'd make golf coaches have to work with soccer coaches or rugby coaches for a period of their training programme...This multi-sports swap is very healthy. It teaches a much bigger understanding. (C90)

The major sentiment portrayed by the coaches in this case was that a multi-sport approach to coach education could facilitate innovation by helping practitioners to “think outside of the box” (C15). Further debate and research into the usefulness of such experiences is consequently required.

These coaches ( $n = 28$ ) also stressed the importance of being provided with “practical experiences” (C59). Whereas ineffective provision was described as “not

[providing] enough time to practice new skills” (C66), effective coach education was identified as having a “strong emphasis on structured reflective practice” (C15), through practical experiences “under supervision with constant feedback” (C66) and “peer observation whenever possible” (C59). This finding, consistent with those already discussed, further demonstrated that the coaches in this study tended to be pragmatic learners. Having been presented with knowledge that is relevant and useful, they then wanted opportunities to try this new knowledge out for themselves.

By stressing the importance of integrating practical experiences, findings of the present study have added to those previously reported in the coaching and teaching literature (Armour & Yelling, 2004b; Bloom et al., 1995; Garet et al., 2001; Wiersma & Sherman, 2005). Indeed, coaching research has served to demonstrate that ‘hands-on’ experiences are perceived as being the most enjoyable aspect of coach education attendance (Hammond & Perry, 2005). These opportunities also assist the integration of new knowledge, while also presenting coaches with a rare opportunity to receive feedback on their coaching practices (McCullick et al., 2002, 2005). Linked to this desire for personalised information was the importance attached to mentoring.

Participants ( $n = 17$ ) also encouraged the implementation of formal mentoring schemes. Findings from this investigation have therefore contributed towards a growing body of evidence demonstrating that practitioners are arguing for its inclusion (Bloom et al., 1995; Gould et al., 1990; Salmela, 1995; Wiersma & Sherman, 2005):

[Mentoring is] absolutely vital. You need to be able to be exposed to people who have that experience, been there and done that, because they will enable you. You will invariably go through a situation that they have gone through themselves and they will be able to give their thoughts... You absolutely 100 percent need support. (C75)

I would probably encourage more coach mentoring. That’s the main area. I just think that being in the real situation along with a real coach, with an athlete or a group of athletes, is probably worth 10 courses... I think initially it would be fairly one sided, because, you know, theoretically that person knows what he’s doing and the



mentee is there to observe. But in time you have got to encourage them and actually then your going to come to the point when you will be sharing the responsibility and then actually reversing roles over time. (C80)

This also provides evidence in support of arguments for making mentoring an integral component of coach education provision (Cassidy et al., 2004; Cushion, 2006; Trudel & Gilbert, 2006). While earlier presented findings suggested that formal mentoring has started to occur (see the *Coaches' Knowledge Structures & Learning Sources* chapter pp. 76-107), the comments of a participant heavily involved in the construction of his sports coach education programme suggested that this is not easily achieved:

Mentoring would come in...This can't happen over night, because we've got loads of people who have volunteered their services for mentoring and feel they could fulfil that role. But we have actually looked down that list and can maybe pick three people, of the ones that volunteered, that we would be happy taking on the role. (C79)

A lack of appropriate candidates might not be the only problem faced by NGBs, as some coach learners could conceivably refuse to work with their allocated mentor: "You would have to have some contingency because you would have certain coaches who would maybe prefer not to work with certain mentors" (C79). Further inquiry into those factors facilitating and inhibiting the effective implementation of mentoring programmes would therefore appear necessary. While the coaches in this study largely perceived effective coach education as being that which provides pragmatic outcomes, through the proactive delivery of appropriate content by a competent educator, subsidiary supporting factors of a more logistical orientation were also identified.

### *6.5 Supporting Factors (50 Meaning Units)*

It was demonstrated in the preceding chapter that the coaches in this study cited money as presenting the biggest barrier to further engagement in coach learning (see

the *Coach Learning Motives & Deterrents* chapter pp. 108-123). In light of this finding, effective coach education was identified by some coaches ( $n = 11$ ) as having an “acceptable price” (C5), whereas ineffective provision was perceived as being overly “expensive” (C24). Providers were advised to “ensure funding is available” (C58) not only for elite level coaches, but practitioners across the diverse range of levels. In instances where funding is unavailable or limited, those providing coach education were advised to give careful consideration to course costs, especially when attendance is to be made mandatory for the maintenance of certification:

If they (educational endeavours) are to be mandatory they must be affordable. £100+ is not affordable for most. Plus travel and time away from workplace, net costs are close to £500 per day. This is not cost effective in today’s marketplace. (C74)

So for some sections of the coaching population it would appear that the cost of undertaking courses is viewed as a potential concern. This is arguably a function of wider problems associated with coaching comprising of a predominantly part-time and voluntary workforce (Kay et al., 2008). Unlike those working in established professions, coach learning is often self-funded as coaches rarely work in environments where there is a dedicated educational budget for ongoing development (see the *Coach Learning Motives & Deterrents* chapter pp. 108-123).

Additionally, coaches ( $n = 14$ ) also identified the topic of location as an area requiring consideration. Ineffective coach education was described as taking place “a long way away” (C24) and at locations with “unsuitable facilities” (C28). Those responsible for the provision of coach education were therefore advised to “keep it local” (C49), ensure “quality of venue” (C54), and to “make lots of courses available – evenly distributed throughout regions so that everyone can attend” (C56). While stressing a similar point, one of the interviewed coaches asserted the importance of regionalised supporting agencies, if this goal is to ever be likely achieved:

I think that developing thriving local coaches associations is vital, absolutely vital, because that’s where the people on the ground come together and it’s accessible. The whole idea of coach education is that it’s got to be accessible. (C89)



In addition to cost, location, and quality of venue, eight respondents stressed the importance of implementing an accreditation scheme where the obtainment of coaching certification is a statutory requirement for active coaching practitioners: “Keep pressing for coaches employed at sports centres and other locations to have professional qualifications” (C69). In the current coaching culture, however, it would seem that an amateur sporting ethos is serving to undermine the importance of these awards as, “you don’t need the coaching qualifications to coach” (C84). Indeed, figures released by Sports Coach UK (2007) have demonstrated that 50 percent of UK coaches are not certified to practice.

Running parallel to the notion of compulsory certification was the significance seven coaches attached to, “driving forward the importance of attending CPD” (C9). So discussions about whether the evidencing of CPD should become a compulsory requirement requires further exploration. A comment by one of the coaches captured the dynamic of this issue somewhat perceptively when suggesting that, “Mandatory CPD is never necessary for committed coaches, but essential to ensure standards are maintained and people stay current” (C35). Consistent with the sentiment of this comment, the coaches in this study were shown to be internally driven to engage in ongoing learning, from a range of sources, without being externally forced to do so (see the *Coaches’ Knowledge Structures & Learning Sources* pp. 76-107 and *Coach Learning Motives & Deterrents* pp. 108-123 chapters). While it is possible, some might even argue likely, that this is not an accurate representation of the entire coaching population, one should perhaps question whether any practitioner requiring the incentive of external governance has in-fact selected the correct occupation? Investigations into whether external requirements impact, be it positively or negatively, on the learning of those internally motivated coaches would also appear necessary.

### *Discussion*

Practitioners in the present study wanted the content of coach education to be relevant to their coaching context and their own ongoing personal development. These findings mirror Rogers’s (1969) own experiences from which he observed that, “significant learning takes place when the subject matter is perceived by the student as having relevance for his own purposes” (p. 158). Conversely, participants were

frustrated by educational experiences that resulted in needless repetition and the covering of what they perceived to be irrelevant material. The occurrence of negative experiences might be partially explained by courses being underpinned by the misinformed assumption that, “the student cannot be trusted to pursue his own scientific and professional learning” (Rogers, 1969, p. 171) and that, “knowledge is the accumulation of brick upon brick of content and information” (Rogers, 1969, p. 178). This is perhaps best evidenced in coaching by the delivery of standardised syllabi, the content of which some coaches are already familiar or perceive as being removed from the reality of their everyday tasks. In light of this, it was Rogers’s (1961) belief that educators should, “permit the student, at any level, to be in real contact with the relevant problems of his existence, so that he perceives problems and issues he wishes to resolve” (pp. 286-287). At the heart of Rogers’s theory, then, is a basic reliance on the actualising tendency (see the *Coach Learning Motives & Deterrents* chapter pp. 108-123). According to Sandholtz (2002), autonomy and choice are an important aspect of professional development provision, because their inclusion helps to ensure that learning activities are relevant to the attendees’ needs and professional interests.

Although this would appear logical, there is of course an expectation that certain topics should be covered as part of a practitioner’s professional preparation (Mearns, 1997; Rolfe, 1993). While it would appear important that students acquire a body of knowledge set by the syllabi of their professional body, Jarvis (2006c) points out that it remains possible for educators to involve their students in selecting the content of sessions by discussing which parts are regarded as most vital, whether sections are already known or whether there are elements they would be prepared to teach themselves.

In addition to content being relevant to their purpose, the coaches under investigation also stressed that they wanted information to be usable. These coaches wanted to develop “practical knowledge” (Jarvis, 2004, p. 282). This finding resonates with Rogers’s (1961) own theoretical inclinations, specifically those relating to how education, rather than focusing on the provision of facts, should aim instead to promote what he described as significant learning:

By significant learning I mean learning which is more than an accumulation of facts. It is learning which makes a difference – in



the individual's behavior, in the course of action he chooses in the future, in his attitudes and in his personality. It is a pervasive learning which is not just an accretion of knowledge, but which interpenetrates with every portion of his existence (p. 280).

The study's participants also wanted coach educators to demonstrate the application of theory in practice. This is consistent with Rogers's (1951) belief that observations are "exceedingly important resources" that present students with valuable learning experiences (p. 465). This can perhaps also be further understood through Guskey's (2002) model of teacher change, which proposes that it is the experience of seeing knowledge successfully implemented in practice that ultimately shapes teachers' attitudes and beliefs.

Understanding the acquisition and composition of practical knowledge could also potentially help further explain some of the findings identified. For example, it has been contended that this knowledge is:

Learned in practical situations; practical, and not merely the application of some 'pure' academic discipline to practical situations; dynamic, in as much as it is only retained for as long as it works; integrated, rather than divided up by academic discipline (Jarvis, 2006d, p. 151).

The practical and integrated nature of such knowledge, then, might explain why discipline specific sports science theory is at times unable to adequately serve the coaching community. It might also explain why these coaches were drawn towards hearing other practitioners talk of their integrated understandings that have been constructed via experiential learning. Inevitably, however, the intellectual rigor of any professional development initiative must be balanced against practitioners' expectations for practical relevance (O'Sullivan & Deglau, 2006). The nature of practical knowledge also has significant implications for the delivery of coach education. It is to the acquisition of knowledge that I will now turn.

The coaches under investigation wanted less didactic teaching and greater opportunities to interact with other practitioners. Likewise, Rogers (1980) was apathetic towards lectures being the primary method of delivery and promoted instead

the creation of what he termed a “community of learners” (Rogers, 1969, p. 105). Rogers (1969) proposed that educators should become facilitators of learning. Individuals who share themselves with the group, “in ways which do not demand nor impose but represent simply a personal sharing which students may take or leave” (p. 165).

Building on earlier reports, these coaches’ valued formalised open discussion with other practitioners and wanted more of these opportunities (Cassidy et al., 2006; Culver & Trudel, 2006; Knowles et al., 2001; Wiersma & Sherman, 2005). This finding is perhaps understandable, especially when acknowledging that these coaches, like those in earlier investigations, would appear to have acquired much understanding through informal interactions (Abraham et al., 2006; Fleurance & Cotteaux, 1999; Irwin et al., 2004; Jones et al., 2003, 2004; Lemyre et al., 2007; Salmela, 1995; Schempp et al., 1998, 2007; Wright et al., 2007). For coaches, then, interaction is a common and key means through which they can, do, and want to learn. This finding can be further understood by the coaches’ desire to acquire practically usable knowledge. As was previously identified, practical knowledge is often the result of theory derived from practice (Jarvis, 2006d). Open discussions with experienced practitioners, then, provide valuable opportunities to access this type of knowledge. Collaborative and open communication are also important because they cause practitioners to critically examine their work, analyse beliefs and assumptions about their role, and grapple with the uncertainties of practice (Sandholtz, 2002).

The participant coaches also suggested that practical experiences and high quality resources should be made available. With regards to the second of these points, Rogers (1969) was of the opinion that effective facilitators endeavour to

...organize and make easily available the widest possible range of resources for learning. He endeavors to make available writings, materials, psychological aids, persons, equipment, trips, audio-visuals – every conceivable resource which his students may wish to use for their own enhancement and for the fulfilment of their own purposes (pp. 164-165).

In relation to the first point, Rogers (1951) also saw practical experiences as a vital part of the experiential learning process. He was of the conviction that practical



experiences provide issues for further exploration. Like contemporary coaching scholars, then, Rogers saw practical experiences as needing to be at the heart of the learning process, rather than being some adjunct to it (Cushion et al., 2003; Gilbert & Trudel, 2006; Knowles et al., 2001, 2005). Gusky's (2002) model of teacher change helps further explain the importance that the coaches attached to these opportunities, as it is the successful practical application of knowledge that causes teachers' to change their attitudes and beliefs. Practical experiences are also vitally important because practical knowledge is developed through the process of doing (Jarvis, 2004). Linked to the notion of practical learning opportunities was the need for formal mentoring schemes.

The coaches in the present study have also added to an increasing body of knowledge by identifying the importance of formal mentoring opportunities (Bloom et al., 1995; Gould et al., 1990; Salmela, 1995; Wiersma & Sherman, 2005). While Rogers did not write about mentoring *per se*, he did however suggest that learners should, "have available supervision by experienced individuals at any point where the student desires it" (Rogers, 1951, p. 467). Rogers (1951) conceived the role of a supervisor to be that of:

...a resource person, available for consultation, whose function is to assist the student to discover more clearly the issues and problems and flaws in his work, a person who will serve as an interested but noncoercive and non-judgemental source of stimulation and clarification. (p. 475)

So it would appear that supervision conforming to the person-centred approach is consistent with the belief that effective coach mentoring, "involves doing something *with* as opposed *to* a trainee" (Cassidy et al., 2004, p. 187). Indeed, subsequent writings on person-centred supervision theory have served to identify the importance of building an interpersonal relationship founded on the actualizing tendency and Rogers's core conditions (i.e., congruence, empathy, and unconditional positive regard) (Mearns, 1991; Patterson, 1983; Tudor & Worrall, 2004). This research area therefore offers a theoretical framework that could potentially be drawn on in an attempt to further understand and guide the practices of mentor coaches. Early analysis would at least appear to suggest that a significant amount of symmetry exists

between the qualities identified of effective educators in the present study, and those of coach mentors (i.e., approachability, effective communication skills, enthusiasm, experience, and knowledge of their sport) (Nash, 2003) and person-centred supervisors (i.e., currency, effective interpersonal skills, experience, generosity) (Tudor & Worrall, 2004).

### *Conclusions & Future Directions*

This chapter aimed to report the participants' experiences of coach education and their perceptions about how its provision could be enhanced. The findings were analysed primarily, but not exclusively, against Carl Rogers's theory of education. The results broadly demonstrated that the coaches in this study were pragmatic learners who desired relevant and usable knowledge that would ultimately enhance their ability to coach. It was made apparent that they not only wanted content specifically relevant to their coaching context and personal development, but information that was seen to be practically applicable. Indeed, the coaches involved in this study were shown to be in search of significant learning (Rogers, 1969) that would assist the development of practical knowledge (Jarvis, 2004; 2006d). It was also discovered that active approaches were thought to be more useful than purely didactic classroom based sessions. The coaches, for example, stressed the need for greater opportunities to engage in observation, group discussion, practical experiences, and mentoring.

Discussion of the findings demonstrated that many of the coaches' recommendations mirrored those presented in Rogers's theory. The theory of person-centred education helped to make sense of the coaches' suggestions and explain why these practitioners sometimes found traditional educational approaches to be of limited value. The person-centred approach therefore offers a theoretical framework that could arguably be used to guide the practices of those responsible for designing and delivering coach education. While research evidence has demonstrated that person-centred education compares well against other theoretical informed educational approaches (Cornelius-White, 2007), a considerable amount of coaching specific research is required to substantiate whether this theory offers a useful framework for practice. For example, comparable research to that presented could usefully attempt to identify whether similar findings are elicited from practitioners in other nations, thus providing implicit evidence either for or against the person-centred



approach. A more explicit research design might be to gather coaches' thoughts about the potential usefulness of the person-centred approach after their having been introduced to its underlying components. While both of these approaches could offer valuable information there would appear, however, no substitute for attempting to implement the person-centred approach in a 'real-world' setting. It is only by trying this educational approach in practice that we will learn more about its processes, experiences from both the learners' and educators' perspectives, and ultimately how it compares and contrasts to coach education in its traditional format.

Given the importance the respondent coaches attached to the role that educators play in the learning process, it seems important that further research is also conducted into their selection, education, and the identification of qualities and practices that contribute to certain practitioners being held in high regard and others not. It is clear that a significant amount of empirical research is now required to help further our understanding about what constitutes as being effective coach education. There is currently a dearth of investigations attempting to evaluate the impact of coach education in its alternative forms (Lyle, 2007). A considerable amount of research is therefore required before any conclusions can be drawn about the most appropriate means of educating coaches.

## Chapter 7: Thesis Conclusion

This thesis will now end by providing an integrated summary of findings in light of the research questions that resulted from the review of literature. It will be demonstrated that the type of knowledge that these coaches were striving to acquire, and the motivation driving their pursuit of it, would seem to have had a significant bearing on how these coaches' learnt and their learning preferences. These two components therefore appear to be vitally important factors for further understanding coach learning and the effective provision of coach education. This is followed by some critical reflections upon my study and its findings. This section considers possible limitations and argues the need for additional analysis to further understand coach learning's inherent complexities. The chapter ends by outlining an agenda for future research. In light of this, I will first turn my attentions to presenting a summary of the major findings of this thesis.

### 7.1 *Summary of Major Findings*

In the review of literature, it was identified that the motives driving coach learning participation had been largely unexplored. It was shown that research has instead focused on what factors might encourage coaches to engage in coach education (see the *Learning Motives* subheading of the *Review of Literature* p. 33). The present study aimed to address this issue by initiating a new line of coach learning inquiry. Analysis of the coaches' responses demonstrated that these practitioners were pragmatic learners who saw learning as a means of enhancing their coaching ability (see *The Effective (Ineffective) Provision of Coach Education* chapter pp. 124-144). The respondents, for example, suggested that their learning was driven by a desire to become better coaches. This included a drive to enhance their understanding and practical abilities, in an attempt to optimise their athletes' ongoing development and sporting experiences (see the *Coach Learning Motives & Deterrents* chapter pp. 108-123). The coaches' internal drive for enhancing their coaching capabilities was explained by theory of self-actualization (Goldstein, 1939, 1947; Jarvis, 2004, 2006b; Maslow, 1962, 1970, 1971; Rogers, 1959, 1977). These coaches fundamentally saw the process of learning as a necessary process that facilitated their ongoing development. This is not to suggest that the learning undertaken by these coaches was



necessarily effective. There is no means of validating such a claim. In reality, a proportion of the learning undertaken would likely be considered by some as unhelpful or inappropriate. What can be concluded from the responses, however, is that these coaches were internally driven toward trying to become better coaches and that they engaged in learning across formal, nonformal, and informal situations, in an attempt to acquire additional knowledge and understandings of practice (see the *Coaches' Knowledge Structures & Learning Sources* chapter pp. 76-107).

The study of learning situations was identified as requiring further investigation, because the research evidence had been collated primarily from coaches practising in Canada and the United States (see the *Conclusion* subheading of the *Review of Literature* p. 42). The present study addressed this by investigating how UK coaches that practiced across a range of levels acquired their understanding of practice. The findings of this study provided evidence in support of the claim that coaches engaged in ad-hoc learning pathways (Knowles et al., 2001). Analysis of how these coaches' learnt identified that they had engaged in formal (i.e., coaching certification programmes and academic courses) and nonformal (i.e., generic workshops and conferences) coach education. Learning did not, however, only occur while engaging in coach education. Data obtained from the coaches in this investigation built on earlier reports by highlighting that they also learnt in informal situations. The coaches in this study were found to have acquired understanding from their athletic experiences and engaging in interactions, practical coaching, and self-study.

A finding consistent with the coaches' identified motivational goals was the discovery that these practitioners were largely in pursuit of practical knowledge (Jarvis, 2004, 2006d; see *The Effective (Ineffective) Provision of Coach Education* chapter pp. 124-144). In short, the respondent coaches were in search of practically relevant and useable knowledge that they could integrate into practices within their coaching context. Discussions about the nature and acquisition of practical knowledge demonstrated that it is often integrated in nature and learned in practical situations (see *The Effective (Ineffective) Provision of Coach Education* chapter p. 140). A pragmatic desire for practical knowledge, then, helped to explain why these coaches wanted and had learnt through interactions with others. It was demonstrated, for example, that the coaches in this investigation learnt through interactions with athletes, coaching practitioners, field experts, and mentor coaches across learning



situations (see the *Coaches' Knowledge Structures & Learning Sources* chapter pp. 76-107). It was through these interactions that the coaches were able to gain access to practical knowledge or information that could potentially inform its development. An appreciation of practical knowledge can also help make sense of how the underpinning knowledge of these coaching practitioners was acquired and likely applied in practice.

The investigation of coaching knowledge was identified as an area needing further inquiry (see the *Conclusions* subheading of the *Review of Literature* p. 42). The present study contributed towards tackling this issue. Evidence from the present study demonstrated that while the participant coaches' knowledge could be broadly categorised under the titles of Ologies, Pedagogy, and Sport Specific, evidence was also presented in support of claims that coaching knowledge is in reality integrated in nature (Jones & Turner, 2006; Nash & Collins, 2006). Consistent with the concept of practical knowledge, then, it would seem that coaching knowledge is not only multidisciplinary and integrated in fashion, but is largely developed from, and applied in, practical settings. Understanding the type of knowledge these coaches primarily pursued, and the drive to acquire it, also helped to further appreciate the recommendations that these practitioners put forth to enhance the provision of coach education (see *The Effective (Ineffective) Provision of Coach Education* chapter pp. 124-144).

It was identified in the review of literature that formal coach education provision is frequently considered by practitioners to be far from optimal (see the *Coaches Experiences & Perceptions of Coach Education* subheading of the *Review of Literature* p. 22). Coaches in the present study also reported that while they had learnt from their coach education attendance, it often resulted in the acquisition of a few 'golden nuggets' of information, rather than acquiring a substantial amount of new understanding (see the *Coaches' Knowledge Structures & Learning Sources* chapter p. 80). In an attempt to remedy this situation, scholars were identified as having presented a range of prescriptions for better coach education, but have frequently done so with little evidence to support their use (Lyle, 2007). One means of addressing this issue has been to ask practitioners how they perceive that coach education provision could be enhanced. This was, however, shown to be a vastly under researched area, the data of which had been collected exclusively from coaches practicing in Canada and the United States. While presenting useful information, the



findings of research conducted in this area were also identified as being largely descriptive (see the *Review of Literature* p. 29). The present study addressed these issues by gaining the experiences and perceptions of UK coaching practitioners and by utilising relevant theory to help explain the findings.

Consistent with their broader learning activities, the respondent coaches reported that they wanted opportunities to access content relevant to their own personal development and information that is practically applicable to their specific coaching context (see *The Effective (Ineffective) Provision of Coach Education* chapter pp. 124-144). They therefore desired further opportunities to acquire and share practical knowledge with other experienced practitioners. The coaches in this study also wanted to see theory applied in practice and to be presented with opportunities to try new knowledge out in situations where they could receive feedback from others. The findings of the present investigation therefore built on those of earlier studies (Bloom et al., 1995; Gould et al., 1990; Salmela, 1995; Wiersma & Sherman, 2005).

Carl Rogers's (1951, 1961, 1969, 1977, 1980) theory of person-centred education was used as a theoretical framework to make sense of these data, as it seemingly mirrored many of the coaches' recommendations. Findings from the present study therefore provide evidence that Rogers's theory could possibly be used as a framework to guide the practices of coach educators. Perhaps of greatest significance was the importance that Rogers's theory places on building education around its students' tendency towards self-actualization and providing educational endeavours that strive to facilitate what he described as significant learning through engagement in a community of learners. The foundations of the person-centred approach, then, would seem to match those factors that have been shown to significantly influence the respondent coaches' engagement in coach learning more broadly. This finding might explain why such a high degree of symmetry existed between the proposals made by the present coaches and those of Rogers's theory of education.

In presenting recommendations in-line with person-centred theory, these coaches have arguably offered an educational approach capable of grappling with the three variables insightfully observed by Jean Côté (2006) in his editorial review of the articles contributing towards a special edition of the *International Journal of Sport Science and Coaching* (IJSSC). Côté (2006) specifically noted that:

The papers of this issue re-affirm the fact that three variables must be considered before setting up any kind of coach education program. First, individuals that are initiated into coaching come from different backgrounds, experiences and knowledge. Second, coaches work in various types of contexts with varying amounts of resources, equipment and facilities. Finally, coaches work with athletes that vary in terms of age, developmental level and goals. One can see that any changes in one of these variables (coach's personal characteristics, athlete's characteristics and contextual factors) may affect the learning environment and the type of learning that a particular coach needs. Hence, it becomes important that coach education programs have consistent match ups between the objectives of an individual coach, the context in which the coach works and the developmental levels of the athletes (p. 218).

Carl Rogers's person-centred approach, therefore, presents coach educators with a framework that could help them to establish the 'match ups' that Côté talks of. It could also assist in intellectualising the field and placing experiential learning at the heart of the professional education of coaches. What seems clear from the present study, at the very least, is that those responsible for designing and delivering coach education need to give careful consideration towards how coach learners are motivated, what type of knowledge coaches are attempting to pursue, and what type of practitioners the course is striving to develop. These factors significantly influence the type of approach that will be resultantly employed. While the person-centred approach presents an educational framework that could potentially be employed across situations, there remain a number of learning deterrents that would also need to be addressed if participation within coach learning is to be further increased.

It was identified that research had tended to focus on possible barriers to coach education participation (see the *Learning Deterrents* subheading of the *Review of Literature* p. 39). The present study added to this area of inquiry by gathering the coaches' experiences of barriers that they perceived had actually limited their coach learning engagement. Analysis of these data revealed that the participant coaches' responses could be broadly categorised under the titles of Dispositional, Institutional, and Situational Barriers to coach learning. By far the most frequently cited category



was that of situational barriers. The coaches suggested that learning engagement had been restricted by a lack of time and money. While this was found to mirror the broader adult learning literature, contextual factors were identified to help explain these findings. It was, for example, highlighted that coaching largely comprises of a part-time and voluntary workforce. This was highlighted as having significant implications as coaching is not yet a profession. It was argued that for many coaches, then, coach learning engagement had come at a personal cost and had to be ‘fitted in’ around their coaching responsibilities and other employment. Full-time performance coaches also identified time as a barrier. These practitioners were reluctant to take time out of their busy coaching schedules. Further consideration was therefore identified as needing to be given towards how these deterrents might be most effectively reduced (see the *Coach Learning Motives & Deterrents* chapter p. 120). The coaches in this study suggested that providing further funding, regionalising coach education, and holding courses at appropriate times, could all potentially assist in reducing barriers to participation within coach education (see *The Effective (Ineffective) Provision of Coach Education* chapter pp. 124-144). The coaches’ responses also provided evidence in support of the claim that previous understandings can act as a barrier to additional learning (Cushion et al., 2003). Relevant learning theories were drawn on to help further explain this finding (Illeris, 2008; Knowles et al., 2005a; Rogers, 1969, 1977). Having given an integrated summary of my results, I will now critique the findings of my research in order to identify possible limitations and to consider how further analysis, through additional investigation, is needed to ascertain greater complexity of understanding.

## *7.2 Personal Reflections on the Study and its Findings*

Mallett et al. (2009) have recently highlighted the importance of establishing consensus regarding the terminology used to help describe how coaches’ learn. In addition to the formal, nonformal, and informal typology utilised within the present thesis, the research literature on this topic also includes two alternative frameworks. These are Sfard’s (1998) acquisition and participation metaphors (Trudel & Gilbert, 2006) and Moon’s generic view of learning (Werthner & Trudel, 2006). In the present study, Coombs and Ahmed’s (1974) typology was utilised because it seemingly aligned with data obtained from the participant coaches. So it appeared to be a useful tool for describing the findings of my research. However, current developments



relating to the revision of NGB coach certification schemes could conceivably blur the edges between these learning situations.

It is argued that the typologies identified in this thesis have considerable value in illuminating some of the different dimensions of the multifaceted and multilayer nature of coach learning. However, it should be noted that categories within these typologies, like all typologies, are rarely as easily to divide in reality as they are in theory (Cassidy, Jones, & Potrac, 2009). For example, it was established that Coombs and Ahmed (1974) described formal education as “institutionalised, chronologically graded and hierarchically structured educational system” (p. 8). When related to findings of the present study, this definition captured those NGB awards that the participant coaches had completed. On the other hand, nonformal education was defined by Coombs and Ahmed (1974) as, “any organized, systematic, educational activity carried on outside the framework of the formal system to provide select types of learning to particular subgroups in the population” (Coombs & Ahmed, 1974, p. 8). Again, this definition aligned with the participant coaches’ attendance of generic workshops and conferences, which were taken in addition to their NGBs coach certification programme. So Coombs and Ahmed’s (1974) typology pragmatically lent itself to the identification of these data. Despite this, the recent introduction of CPD schemes, requiring the attendance of additional educational activities, to remain certified, means that conferences and workshops are increasingly becoming part of the certification scheme. So the distinction between formal and nonformal educational endeavours may become less apparent with time. Equally, the accreditation of self-directed learning provides another example of how the distinction between these categories, in this case formal and informal endeavours, could prove problematic. Given these examples, and the introduction of alternative conceptual frameworks, it is apparent that further debate regarding the terminology used to describe how coaches’ learn is required if conceptual clarity is to be established, even if this goal will likely prove difficult to achieve (Mallett et al., 2009).

Although establishing commonly accepted terminology relating to how coaches learn is unquestionably an important goal, the possible limitations associated with focusing on the broad identification of learning situations also needs to be recognised. While investigating the various sources of information that the participant coaches’ accessed was a necessary first step, research of this nature is limited in its capacity to provide in-depth understanding about the processes involved in coach



learning. Moreover, although the present study usefully considered, albeit in isolation, knowledge structures, motives driving participation, and barriers preventing coaches' learning engagement, thought should now turn towards how these factors collectively contribute towards whether a practitioner decides to engage in a given learning opportunity and what learning does, or does not, resultantly occur. Indeed, there should be less focus on the comparative merits of learning in formal, nonformal, and informal situations and greater investigation of how understanding acquired from each facilitates and constrains ongoing development within one-another. For instance, it would seem that understandings acquired through practical experiences and self-directed learning can act as a barrier to coaches' acquisition of information delivered during formal coach education (Cushion et al., 2003; Gilbert & Trudel, 1999). So a coach who has acquired much success through the utilisation of an authoritarian approach might, for example, come to question a course that promotes an athlete-centred philosophical approach to coaching. However, it is also conceivably possible that a theoretical concept, such as that just described, could inspire an open-minded coach to engage in additional self-directed learning, post course, to gain further understanding of the presented material. What should be noted, from these examples, is that motivations and barriers will inevitably influence whether learning occurs within a given situation. While identifying categories of coach learning motives and barriers has arguably contributed to the field of study, thought once again needs to turn to possible limitations associated with the uncritical acceptance of these isolated categories. Additional analysis of the motives driving coach learning engagement helps to illustrate this point.

The coaches' responses demonstrated that their ongoing learning engagement had been largely driven by a tendency towards self-actualization. Nonetheless, external factors were also identified. The obtainment of competitive success, monetary rewards associated with employment and the gaining of it, and the evidencing of CPD to remain industry certified, were all highlighted as reasons for completing further coaching related study. While these reasons might be considered external in nature, this does not mean that the learning activities undertaken, in these instances, were involuntarily completed. Indeed, depending upon the perceived locus of causality, Ryan and Deci (2000) have suggested that even extrinsically motivated behaviours can range from being externally regulated (i.e., to obtain an externally imposed reward or satisfy an external demand) to internally integrated (i.e., when the



reasons for the given action are internalised despite being extrinsic in nature). For example, a coach who attends a workshop because he fears the sanction that his NGB will impose for non-attendance would likely be externally motivated because attendance would ensure that he remains certified as a level 3 coach. On the other hand, a coach who attends because she believes that the delivered content would assist her ongoing development would more likely endorse attendance and engage in the learning activity, despite its being a requisite. So it would seem that perceived locus of causality should be considered when investigating external factors driving coach learning engagement. A more in-depth analysis of coach learning motivations may resultantly lead to a greater disparity than simply learning behaviours that are internally or externally driven.

Similarly, further analysis of barriers to learning may establish additional levels of complexity. Data presented in the present study allowed for the identification of learning barriers consistent with Cross's (1981) typology (i.e., situational, institutional, and dispositional barriers to coach learning). However, additional research into this area may discover other deterrents that fall within these categories or actually extend the categories presented. Future investigations might also find barriers, and reasons for engagement, to be in contention with one-another. Coaches could, therefore, conceivably have to weigh-up the potential benefits of a given learning opportunity against any perceived deterrents. For example, when deciding upon whether to attend a coaching conference, a practitioner might perceive the event to be relatively expensive, a long way to travel, and that the advertised content appears to be of little personal worth. Nevertheless, the coach might eventually decide to attend because he or she is keen to learn from a group of likeminded practitioners that they know will be in attendance. In this example then, an internal drive to learn from the anticipated discussions would have out-weighed the identified dispositional (i.e., perceiving that the content would be of little use) and situational (i.e., perceiving that the conference was relatively expensive and a long way to travel) deterrents. The decision could of course also have gone the other way, had the coach decided that the anticipated discussions did not warrant the required financial investment and distance of travel, given his being well read on the conferences' programmed content. Again, the need for an integrated analysis of previous knowledge, motivations, barriers, and learning situations, should be apparent; something that the exploratory nature of the



present investigation and the methodology employed was unable to adequately capture.

Integrated analysis of these factors, then, could prove to be a vitally important issue if greater depth of understanding is to evolve. Indeed, this should include an analysis of the complementing and competing nature of interactions not only between the theoretical concepts studied, but the categories identified within them. Coaching knowledge presents another potential example of this. While the coaches' knowledge structures were broadly identified as being in-line with Abraham et al.'s (2006) typology, the data also hinted towards the coaches running of sessions that have numerous developmental goals (i.e., tactical, technical, physiological, psychological, and social development). It would appear then that these coaches were simultaneously drawing upon a range of information to inform their practices. While identifying the types of knowledge that these coaches' drew on was a necessary first step, it would seem important that further analysis of how understanding integrates to inform decision-making processes is needed. For example, we need to understand how knowledge of a sporting technique, biomechanics issues, physiology and psychology all come together to inform a coaches delivery of a demonstration to his or her athletes. The exploratory nature of the present study and the methodology employed precluded any such examination.

As with any investigation then, the study's initial objectives and methods limited what could and could not be achieved. At the time of study our theoretical and empirical understanding of coach learning was extremely limited. The present investigation therefore sought to navigate relatively unexplored terrain. Similar to work investigating socio-pedagogical considerations of coaching behaviour, the present study focused on providing much needed description, as description is a precursor to theorisation (Potrac et al., 2002). To achieve this aim a qualitative methodology was constructed that was considered capable of gathering data across a range of potentially important issues. A qualitative methodology was also chosen because its methods are able to generate descriptive understanding on topics we know little about (Strean, 1998). The inductive analysis of data gathered through the completion of interviews and open-ended questionnaires helped to achieve this aim. While analysis of the findings allowed for the identification of key components, this critique has served to demonstrate that the presented findings are but a foundation on which further and more complex analysis needs to evolve. Having provided a critique

of my study and its findings, I will now end by laying out an agenda for coach learning researchers to pursue.

### *7.3 Setting a Research Agenda*

The notion of ‘generalisability’ was explored in the methodology section in order to consider the possible utility of the presented findings beyond the boundaries of this thesis (see the *Generalisability* subheading of the *Methodology* chapter p. 74). While it was recognised that the understandings drawn from this research could never be considered representative of the entire UK coaching population, let alone be expanded to all coaching practitioners worldwide, the shared realities identified within the coaches’ data have led me to consider the conclusions of this thesis to be illustrative and informative. Analysis of the study’s findings has revealed five key conclusions that could be utilised to further our understanding of coach learning and the delivery of coach education:

1. While it is possible to compartmentalise coaching knowledge, these coaches seemed to have had a desire for practical knowledge, which is multidisciplinary, integrated in nature, and tends to be constructed from primary coaching experiences and the experiential application of secondary experiences.
2. These coaches attempted to acquire knowledge by engaging with a range of sources in formal, nonformal, and informal learning situations.
3. An internal drive to actualise their potential seemed to primarily motivate these coaches to engage in coach learning.
4. Dispositional, institutional, and situational barriers deterred these coaches from participating in or acquiring new understanding from coach learning episodes.
5. Person-centred education seemed to offer a theoretical framework that could potentially guide the practices of coach educators by



complementing the educational desires and learning activities of these coaching practitioners.

The conclusions of this project arguably offer a starting point from which much fruitful investigation could potentially evolve in an attempt to confirm, refine or refute their accuracy in other contexts. An exploration of these isolated factors is, however, only the tip of the coach learning research 'ice-berg'. As has already been discussed, it was only possible to explore a few of coach learning's key components through the present study. In light of this fact, much unexplored territory remains that researchers need to navigate. Some potentially 'fruitful' avenues will now be explored.

Having summarised the major findings of my thesis and discussed their wider implications, I would now like to end by contemplating the various avenues that researchers might need to explore if a comprehensive understanding of coach learning is ever likely to evolve. To achieve this aim, it seems important to try and establish a broad and all encompassing definition of coach learning. Jarvis (2006b) has recently defined learning as:

...the combination of processes whereby the whole person – body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses): experiences a social situation, the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the person's individual biography resulting in a changed (or more experienced) person (p. 13).

If applied to the realm of coach learning, Jarvis's definition could arguably be adapted to read as follows: "Coach learning is the combination of processes whereby the coach – body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses): experiences a social situation relating to coaching, the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the coach's individual biography resulting in a changed (or more experienced) coaching practitioner". When acknowledging the complexity inherent within such a definition, it soon becomes apparent that those wishing to study the phenomenon of coach

learning will be required to draw on and attempt to synthesis understandings gathered from a diverse range of fields. While the socio-cultural dynamic of coach learning appears to have gained increasing currency over more recent times, it seems important that researchers do not lose sight of the fact that this is but one facet, albeit a very important aspect, of the complex process we call learning. Any comprehensive explanation of coach learning will of course require a detailed understanding of how the socio milieu in which coaches engage facilitates, constrains, and shapes the process of learning. This will, however, need to be supplemented by a thorough understanding of the internal ongoing associated with learning. Learning is, after all, an existential process that results in the individual's mind and biography changing as a result of their experiences (Jarvis, 2006b).

What is clear, is that, any comprehensive attempt at understanding coach learning will need to appreciate four fundamental elements: "the person, as [a] learner; the social situation within which the learning occurs; the experience that the learner has of that situation; [and] the process of transforming it and storing it within the learner's mind/biography" (Jarvis, 2006b, p. 198). When taking these factors, and the previously identified definition into account, it should be clear that coach learning needs to be studied from an interdisciplinary (i.e., biological, neuroscientific, philosophical, psychological, sociological, etc) perspective. While no one approach will ever be able to tell us everything about the mechanics of coach learning, each will nonetheless throw some additional light onto this complex subject. It is only by engaging with these disparate disciplines, and fusing understanding from them, that we will ever likely be able to capture and make sense of coach learning's inherent complexities in a way that is meaningful.

Arguably the first step in this process is to move beyond the identification of learning situations. Research in the present study has, for example, shown the importance of understanding those factors that motivate and deter coaches from engaging in additional learning. It was therefore suggested that research should now move beyond the identification of learning situations to a more in-depth analysis of the processes underlying coach learning (see the *Coaches' Knowledge Structures & Learning Sources* chapter 76-107). This would likely entail longitudinal research that aims to track the learning of case study coaches over a prolonged period of time. Research conforming to these recommendations would conceivably allow for a more



sophisticated understanding of coach learning. It would, for example, facilitate ‘linked-up’ thinking through the observation of coach learning as it occurs.

While the analysis of retrospective accounts, as utilised in the present study, have served to usefully further understanding about how coaches learn, this methodology presents ‘snap shots’ and can lead to the study of isolated topics. Longitudinal case study research would allow the investigator to identify the following in an integrated fashion: (1) What topic is the coach attempting to learn about? (2) What initiated an interest in this area? (3) What is motivating the coach to continue learning about this topic? (4) What learning situations and sources does the coach access in an attempt to acquire understanding about this topic and why? (5) What barriers if any are encountered while attempting to acquire further understanding? (6) How does the coach integrate new understanding into existing knowledge and practice? (7) What impact does this learning have on athlete development? In light of this, coach learning researchers also needs to recognise the import link between learning and practice. Learning not only results from practice, but also informs future practices. It was therefore highlighted that additional research is needed to further understand how coaches draw on integrated multidisciplinary understanding when making decisions (see the *Coaches’ Knowledge Structures & Learning Sources* chapter p. 106).

Additional research into the impact of coach education was also identified as being necessary (see *The Effective (Ineffective) Provision of Coach Education* chapter p. 144). Lyle (2007) has noted, for example, that scholars have prescribed numerous theoretical frameworks that educators could draw on in an attempt to enhance the efficacy of coach education. The present investigation offered another theoretical framework based on the evidence presented by the participant coaches. An attempt at directly comparing the impact of these alternative approaches to the delivery of coach education is therefore needed. This could conceivably be achieved through an intervention study that puts cohorts of coaches through courses delivered using contrasting approaches. Pre and post analysis of knowledge, practices, and athlete development could arguably help to identify the most appropriate method of educating coaches. Coaches’ and educators’ perceptions of the delivered courses could also be recorded to allow for a comparison of experiences.

We as researchers have a responsibility to try and achieve this agenda in order to further understand how coaches learn and to identify means that could best

facilitate the development of coaching practitioners. This thesis has served to document my existing thoughts relating to an empirical study of these topics. This is a foundation on which I'm hopeful that much further understanding will later develop, as there is yet so much to be understood.



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# **Appendix 1**

# Formal, Nonformal and Informal Coach Learning: A Holistic Conceptualisation

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## **ABSTRACT**

Using Coombs and Ahmed's [1] framework of formal, non-formal, and informal learning as the analytical framework, this paper aims to review and conceptually locate literature exploring how sports coaches acquire the knowledge that underpins their professional practice. Furthermore, in an attempt to develop a robust set of accessible terms and concepts this paper identifies, explores and positions various terminologies under the broader heading of coach learning. It was hoped that this conceptual review would not only stimulate discussion and research into coach learning, but that it would also promote the construction of models of how coaches currently learn, as well as models for enhancing coach learning. The paper concludes that coaches learn from a wide range of sources, but formalised (i.e., formal and nonformal) learning episodes were found to be relatively low impact endeavours when compared to informal, self-directed modes of learning.

**Key words:** Coach Education, Coach Learning, Formal Learning, Informal Learning, Nonformal learning.

## **INTRODUCTION**

According to Schempp [2], "the degree of success that professionals experience in meeting societal demands is largely dependent upon the knowledge they generate and accumulate for the tasks and obligations that they undertake" (p. 3). As such, it could be suggested that if we are to further understand coaching as a profession, it is necessary to explore and analyse its knowledge bases [3]. In this respect, Schempp [2] has suggested that from "an understanding of knowledge sources and the process of pedagogical reasoning and action can come from a firm foundation for educating" (p. 3).

Despite recognition of the importance of coach preparation and development [4], and a resulting increase in the number of coach education programmes being implemented worldwide [5], it could be argued that our understanding of coach learning and the acquisition of professional knowledge lacks a clear conceptual base. Indeed, while the limited existing research in this area has suggested that coach learning is influenced by a complex mix of formal [e.g., 6, 7], nonformal [e.g., 8], informal [e.g., 3], directed [e.g., 9]



and self-directed [e.g., 5] learning experiences, it has largely developed along serendipitous lines. In this respect, it could be argued that research in this area has been more influenced by personal and methodological interests of scholars rather than attempting to develop a conceptually orientated research agenda [10, 11].

A further issue associated with the need for a clear conceptual framework of coach learning is that the literature available in this area has arguably suffered from a lack of definitional clarity that, on occasions, has left the field speculative and imprecise. This is well illustrated by a wide range of terminology employed, at times uncritically, to describe coach preparation and development. Examples to illustrate this include, coach learning [12], coach education [13], coach training [14], coach development [15], continuing professional development [16], plus coaching and sport instructor certification programmes [17]. We believe that the interchangeable use of terminology has clearly impacted upon the development of the field, as few models of coach preparation and development exist [18]. This review therefore provides a foundation for future research by highlighting areas that require further exploration, as well as assisting the development of future formalised coach learning episodes.

To this end, the aim of this paper was to begin mapping the conceptual territory of coach learning by reviewing literature that explores how coaches acquire the knowledge that underpins their professional practice. Our intention was not to provide a definitive conceptual map of coach learning, but rather to stimulate discussion and research into coach learning in ways that are conceptually informed. In order to achieve this, the paper is structured around Coombs and Ahmed's [1] conceptual framework of formal, nonformal, and informal learning. Given its broad acceptance and utilisation in mainstream adult learning literature [e.g., 19, 20, 21] the framework was deemed appropriate to initiate discussions surrounding coach learning. Each of the following sections begins by presenting a critique of various terminologies before presenting an overview of research conducted in the given component of coach learning. It was envisaged that identifying, exploring and locating various terminologies under the broader concept of coach learning would not only help develop a more in-depth appreciation of the construction of professional knowledge by sports coaches, but would also contribute towards initiating models of (based on empirical research) coach learning and models for (idealistic representations) enhancing coach learning. This provides a foundation for future research by highlighting areas that require further exploration, as well as assisting the development of future formal coaching episodes.

## **COACH LEARNING**

Before exploring and locating the various sources of coaching knowledge and practice under Coombs and Ahmed's [1] formal, nonformal, and informal learning framework, we would first like to present the reasons as to why coach learning should become the overarching terminology employed. This process begins by exploring the differences between learning and education.

Recent inquiry has revealed that "in contemporary society, the concept of education has been seen as inadequate and more recently the term learning has assumed a greater prominence for what might previously have been seen as educational" [22, p. 43]. Although considerable debate continues to surround this area, with a definitive definition remaining elusive, education is fundamentally considered the "process of assisted or guided learning" [23, p. 45]. Learning shifts the emphasis to the person in whom change is expected to occur or has occurred, and is therefore described as an "act or process by which behavioral change, knowledge, skills and attitudes are acquired" [24, p. 100-101]. This could be either through



experience, reflection, study or instruction [25]. It could be argued that the term education is conceptually restricting, whereas learning can embrace all forms through which coaches acquire the knowledge that informs their professional practice. Jarvis [22] offers support to this notion in stating that “many different learning processes occur during the human lifespan, but not all of them may be considered educational” (p. 43). It will be shown in this paper that coach learning occurs not only inside, but also outside of, educational settings [16]. Consequently, while the coach learner is an essential element in the learning process the coach educator is not, as learning often occurs without teaching.

Given the argument presented, we believe that the term coach learning better encapsulates the means through which coaches develop an understanding of their working knowledge. This process, as we will discuss, involves a range of learning activities and various sources. For the purpose of clarity, the following sections organise these knowledge sources into Coombs & Ahmed’s [1] framework of formal, nonformal, and informal learning. Although we discuss these three categories separately, in reality they should be conceptualised as interconnected modes of learning rather than discrete entities (as they may exist simultaneously in concert or conflict) [19].

## **FORMAL LEARNING**

According to Coombs and Ahmed [1], formal learning is defined as something that takes place in an “institutionalized, chronologically graded and hierarchically structured educational system” (p. 8). Formal learning programmes characteristically require candidates to demonstrate prerequisites outlined in admissions guidelines, before embarking on a course that enforces compulsory attendance, standardised curricula, and culminates in certification [19]. Formal learning activities conforming to this definition include large-scale coach certification programmes developed by the national governing bodies of sport and tertiary courses relating to sports science and coaching. Although research indicates that coaches frequently engage in formal learning activities, it also demonstrates that these are a relatively low impact endeavours when compared to informal learning activities [6, 7, 8, 9, 16, 26, 27, 28].

The content, delivery and context of formal learning programmes, especially national governing body (NGB) coaching awards, have been criticised on a number of accounts. Specifically, these courses have tended to occur in short blocks of time, usually several months and often years apart, with minimum follow-up, and few opportunities to facilitate the integration of new knowledge into coaching practice [29]. The curricular content of such courses has tended to favour the bio-scientific disciplines, frequently neglecting the social sciences [30]. Hence, it has been argued that coaches often leave with an understanding of the sport sciences (i.e., physiology, psychology, biomechanics), plus a tactical and technical awareness of their sport, but have little appreciation of pedagogical and socio-cultural aspects relating to the coach’s role in the coaching process [18].

Although one can rightly argue that an understanding of sport science is essential, its delivery is often compartmentalised with each discipline being dealt with separately – when in reality coaching practice entails the intricate integrations of various sources of knowledge at any one period of time [30]. Moreover, delivery has often taken a “methods-and-materials orientation” [31, p. 155] presenting coaching as a mechanistic process that can be delivered, acquired and implemented in a standardised manner. Indeed, awards have frequently attempted to present candidates with the distilled “wisdom of expert practitioners” [12, p. 279] by offering predetermined strategies to overcome a catalogue of perceived coaching dilemmas [32]. Such programmes have subsequently been criticised for offering a ‘tool box’ of professional knowledge that privileges a technocratic rationality [16, 33].



This approach assumes that knowledge, in the form of ‘tricks of the trade,’ can be passed down from one generation to the next – when in reality the development of knowledge is perhaps a more complex process [34]. Although it is possible that such knowledge could potentially be transferred from coach educator to learner, this approach does little to provide the learner with a theoretically informed understanding. Learners may be left confused and unsure as to when, how, and why this knowledge should be applied.

A further criticism has been that of presenting coaches with largely de-contextualised learning by having practitioners coach one another. Although providing opportunities to undertake practical coaching experience must be applauded, it has been suggested that the coaching of peers – or sometimes ‘guinea pig’ athletes – is unlikely to truly reflect the coaches’ typical coaching context and will therefore induce a vastly different set of coaching issues and responses [32]. As an aside, tutors have been found to deviate from the awarding bodies’ intended course content, delivery and assessment methods [35, 36]. At any given level of certification, this lack of consistency is hugely problematic. The outcome of such practice is an inevitable lack of harmonisation within, and potentially between, sports.

Despite being assessed against a set of minimum competencies, coach learners arrive with varying experiences and abilities. Through their previous experience, some coach learners may already have met some (if not all) of the awarding bodies’ minimum requirements. Hence, there will inevitably be variance in the quality of the coaching practice and knowledge demonstrated by ‘graduates’ at each level of formalised coaching programmes. Although degrees of variance are inevitable, a second (and perhaps more serious) consequence of inconsistency within courses, is an increasing likelihood of a workforce that demonstrates a large variance in the levels of coaching knowledge and the quality of professional practice. It is reasonable, therefore, to expect that coach educators should strive to ensure that there is a high level of consistency in the way that these formal learning episodes are delivered to the coach learners and the manner in which their competency is assessed. It is largely through minimising ‘intra’ course variation that coach educators can contribute to harmonising coaching standards at each level of the given certification programme.

Although research into this area has tended to constructively criticise formal learning programmes, there have also been a number of positive findings that are often overlooked. For instance, Malete & Feltz [37] discovered that a programme for athletic coaches significantly enhanced their perceived efficacy towards influencing the learning and performance of their athletes. Participants of soccer [35], golf [17, 38] and rugby [39] programmes have also indicated positive perceptions of the content and delivery methods employed. Although it is beyond the scope of this paper to discuss the findings of this research in any great detail, participants from these studies highlighted the importance of the following:

1. Knowledgeable and professional coach educators [17, 35].
2. Well organised and structured programmes that progress from a basic introduction through to a complex exploration of concepts [17, 35].
3. Appropriate content that is pitched at the correct level and endeavours to integrate theory [17, 35].
4. Coach educators modelling the behaviours and practices that they wish to see from the coach learners [38].
5. The opportunity to apply knowledge in a practical coaching scenario under the guidance of a coach educator who provides constructive feedback [17, 35, 38].



6. Exploration of individual learning styles and how learning preferences impact upon coaching practice [17, 39].
7. The ability to discuss issues, plus share experiences, with other coaching practitioners [39].
8. The opportunity to explore issues relating to the coaching process and coaching pedagogy [17, 39].

Perhaps the most noted is the work of Smith et al. [40, 41, 42, 43]. Their Coach Effectiveness Training programme was shown to elicit desirable coaching behaviours (e.g., increased reinforcement, encouragement and technical instruction, while reducing punitive responses); enhance athlete perceptions of the coach; create a more socially supportive environment; increase athlete self-esteem and enjoyment; while reducing performance anxiety and incidents of drop-out. These are obviously welcomed outcomes and as such valuable lessons could potentially be drawn from their approach. According to Smoll and Smith [44], a key element of their course was to emphasise that,

...many options are available for dealing with particular coaching situations, and although all of these tactics may work in some cases, certain procedures have a greater likelihood than others of being successful. By counteracting the notion of 'right versus wrong,' we stress the importance of flexibility and thus attempt to make coaches receptive to alternative ways of responding to specific circumstances (p. 464).

Thus it would appear that coach educators should restrain from prescribing a right way of coaching. Instead, they should promote the importance of being able to adapt to the diversity inherent in the coaching process, while highlighting the potential outcomes of various approaches.

An interesting avenue for future inquiry would be to recognise the ever-increasing number of universities offering both undergraduate and postgraduate coaching-related programmes worldwide [12, 15]. To date, the nature and impact of these programmes has received scant attention [e.g., 29]. We therefore urge further investigation into this domain so answers to the following questions can be elicited: At what stage in their development are coaches typically attending these programmes? What motivations are driving coaches to enrol on these courses? What content, delivery and assessment methods are being employed? Does attending these courses enhance employability? Are these programmes impacting upon knowledge, practice and the athlete's experience of the coaching process? Does the attendance of these courses accelerate development towards expert status?

## **COACH EDUCATION, TRAINING OR INDOCTRINATION?**

When analysing the coach learning literature, it soon becomes apparent that 'coach education' is the terminology most frequently employed to describe formalised provision. As we have argued, however, some of the shortcomings of coach education owes as much to a lack of conceptual clarity as to other factors. As the previous section demonstrates, formal coach-learning programmes have been widely criticised. Importantly, this evidence is largely based on the key assumption that formal provision of coach learning has been an educational endeavour. Formal coach learning programmes could be more appropriately labelled coach training or even indoctrination in certain cases.

According to Buckley and Caple [25], education and training have a number of significant conceptual differences, exploration of which calls into question the 'education' in coach



education. They consider training to be more job-orientated, because it focuses on the acquisition of knowledge, behaviours and skills specific to a profession. Training, therefore, “tends to be a more mechanistic process which emphasises uniform and predictable responses to standard guidance and instruction reinforced by practice and repetition” (p. 2). Education, on the other hand, is viewed as being more person-orientated, focusing on providing “more theoretical and conceptual frameworks designed to stimulate an individual’s analytical and critical abilities” (p. 2). While training promotes uniformity of knowledge and practices, education attempts to increase variability (emphasising and explicating individual differences).

While exploring the criticisms of coach ‘education,’ it would seem that current coaching awards are often more akin to training than education. For example, as we have discussed, the literature suggests that coaches are often subjected to a standardised curriculum that privileges a technocratic rationality by offering a ‘tool box’ of professional knowledge and a ‘gold standard’ of coaching [33]. In so doing, it is hoped that the candidates will leave having the requisite standardised knowledge and a battery of strategies to overcome what the awarding body perceives as typical coaching dilemmas in the coaching process. This would suggest that much of formal coach education provision, in its current form, could in fact be labelled as coach training. When viewed in this light, coach training is arguably effective in achieving its desired learning objectives. The gaining of certification offers support to this notion as it demonstrates that many practitioners have satisfied the governing bodies’ criteria by acquiring and displaying desired minimum levels of coaching competency.

Some formal learning provision could be described as indoctrination, which can be defined as “activities that set out to convince us that there is a ‘right’ way of thinking and feeling and behaving” [23, p. 53]. In this respect, indoctrination denies the learner choice and instead exposes the learner to a single set of values and attitudes that they are expected to acquire and abide by. Examples of this might include indoctrinating a prescribed method of delivery, feedback sequence, coaching philosophy, tactical and technical approach [3, 45].

Currently, it could be suggested that the content of formal coach learning programmes defines what knowledge is necessary for coaches to practice and how that knowledge can ‘best’ be transmitted [e.g., 45]. An example of this is cited in Jones et al. [9], with a coach suggesting that “over the past fifteen years we’ve had robotic coaches being churned out....after a two week course, all the coaches came out knowing and doing the same things because that is what you needed to pass” (p. 16). Along with the work of Potrac [45], this study highlighted the dissatisfaction evident among a selection of top-level soccer coaches with their experiences of coach education provision. However, in order to obtain the certification required to work at the highest level of football, the coaches felt that they had little option but to coach in the manner prescribed by the coach educators delivering and assessing these courses.

Tinning [46] contends that this implies a choice between different views of what knowledge is essential for practice and what form that practice should take. This is a form of social editing, where some themes are eliminated and others are promoted [31]. The process becomes a political act, intimately linked with power and control, regarding what constitutes legitimate knowledge and who holds that knowledge in the culture and profession [16].

## **NONFORMAL LEARNING**

In the context of this paper, nonformal learning is conceptualised as “any organized, systematic, educational activity carried on outside the framework of the formal system to provide select types of learning to particular subgroups in the population” [1, p. 8]. Examples



of nonformal learning include coaching conferences, seminars, workshops and clinics. Although formal and nonformal learning share many similar characteristics, nonformal learning differs as it presents a particular subgroup of a population (e.g., high performances coaches) with alternative sources to those of the formalised structured learning pathway (typically, short courses delivering on a specific area of interest).

Research indicates that coaches are engaging in nonformal learning activities [e.g., 8, 27, 47], but there has been a tendency in the literature to consolidate all forms of external provision under headings such as ‘coaching courses’ [e.g., 6, 7]. This makes it extremely difficult to decipher what specific formal and nonformal activities coaches are taking. Researchers should therefore refrain from placing sources of knowledge under broad headings, but instead detail the various formal, nonformal and informal endeavours that coaches engaged in. There is also a need to assess the impact of these nonformal learning activities on coaching activities.

## **INFORMAL LEARNING**

Informal learning is identified as “the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment” [1, p. 8]. Learning occurs in a wide variety of contexts [48], the majority of which occur in an informal setting [20] beyond dedicated formal learning institutions [50]. Coaching research indicates that practitioners learn through various avenues, including previous experience as an athlete, informal mentoring, practical coaching experience, plus interaction with peer coaches and athletes [e.g., 6, 7, 8, 9, 16, 26, 27, 28, 49, 51].

At this point, we would like to introduce the term self-directed learning as it is often used interchangeably with informal learning [20]. In addition to the avenues already identified, the literature highlights that coaches engage in other forms of informal self-directed learning such as utilising and exploring the internet [28], plus reading coaching manuals [6], books [8, 26, 28], journal articles and magazines [8]. Furthermore, coaches have been shown to watch educational sports science videos [28], footages of coaching sessions [6], plus recordings of the performance of their and others’ athletes [6, 8].

As shown above, coach learning frequently occurs outside formal and nonformal learning settings. Indeed, the fact that experience and other coaches are still highlighted as the most important facet in the development of coaches [50, 52, 53] bears testimony to the power of informal learning. Much of this informal self-directed learning attempts to overcome coaching issues by reflecting-in, reflection-on, and retrospectively reflection-on [5] technical, practical and critical issues [18, 54, 55]. Research demonstrates that, during this process, coaches often attempt to develop strategies to overcome practical coaching dilemmas by drawing on the various sources previously identified [5, 56, 57]. Although much of this self-directed learning occurs outside of formal and nonformal learning institutions, it would be difficult to claim that a proportion of these endeavours were not in fact educational [22]. For example, when utilising materials such as coaching and sports science manuals, books, journal articles, videos and Internet sources, the coach is engaging with materials created by a third party who had intended leaning outcomes from the resource and may therefore be considered indirectly to be ‘teaching’ [23].

It has also been proposed [58] that informal learning occurs through engagement in “informal learning networks” [59, p. 53] or “communities of practice” [60, p. 29]. Groups of likeminded individuals unite to exchange information, ideas, skills and resources, utilising each other as an accumulated pool of knowledge and experience that can provide solutions to practical dilemmas [48, 59]. Learners often enter communities of practice at the periphery



and over time move closer to full legitimate participation as they gain knowledge, learn the norms, and see themselves as members of the community [58, 60]. Learning is viewed as distributed among many participants within the community in which people with diverse expertise are transformed through their own actions and those of other participants. In the context of coaching, Cushion et al. [16] suggest that it is largely through such experiences that collective understandings begin to develop and the shared meanings about the occupational culture of coaching start to take shape. Therefore, much of what a new coach learns is through ongoing interactions in the practical coaching context. Such formative experiences carry far into a coach's career and provide a continuing influence over perspectives, beliefs, and behaviours [9].

It is primarily through informal learning experiences such as reflection, mentoring and communities of practice that coaches begin to get a feel for what coaching is, how coaches behave and how day-to-day roles and responsibilities are fulfilled [61]. These avenues allow the coach to engage in advice seeking, joint construction and reflective transformations with their peers to develop strategies to overcome their practical coaching dilemmas [5]. It would thus appear that the contribution of informal self-directed learning should not be underestimated. Time spent on formal and nonformal learning programmes is dwarfed by the hours spent as an athlete and coach. Gilbert et al.'s [15] recent research offers support to this notion indicating that successful coaches typically accumulate thousands of hours experience over at least 13 years participation as an athlete in a range of sports. Moreover, their research indicates that coaches devote relatively little time to formalised coach learning episodes when compared to other activities typically engaged in (such as administration). Given the effectiveness of these informal learning ventures, it is perhaps unsurprising that coach educators have been advised to make reflection, mentoring and communities of practice central to formalised provision [29, 58, 62, 63]. Further research is required, however, before an in-depth appreciation of processes of mentoring and communities of practice are truly understood.

## **INITIAL CERTIFICATION AND CONTINUING PROFESSIONAL DEVELOPMENT**

As another part of a broader concept of coach learning, continuing professional development (CPD) has recently "marched into the discourse of education" [64, p. 96] and has filtered its way through to the literature discussing the development of physical education teachers [e.g., 65] and sports coaches [e.g., 9, 16, 66]. Craft [67] has defined CPD as "all types of professional learning undertaken by teachers [coaches] beyond the initial point of training" (p.6). The phrase "beyond the initial point of training" [67, p. 9] is more easily identifiable in physical education than coaching. Physical education teachers in the UK, for example, are required to undertake a higher education qualification before being permitted to work autonomously within an educational institution [68]. This would therefore constitute the physical education teachers' initial education and any professional learning thereafter clearly identifiable as CPD. Coaching, however, is considerably different in that it is possible to practice without any formal qualifications and this is well illustrated by the fact that only 38% of the UK's 1.2 million coaches hold a formal qualification in the sport they coach [66]. Coaches can undertake undergraduate and postgraduate studies in coaching or sports science disciplines, but these qualifications do not certify the graduate as a coaching practitioner as they are currently not formally recognised by the UK sport's NGBs. As such, an individual intending to become an accredited coaching practitioner can only do so by undertaking their sport's national governing body (NGB) coaching award(s). So we are left with the



paradoxical position of a NGB qualified coach seeing a university qualification as CPD, while a coach undertaking their degree before an NGB award sees that qualification as part of their initial step in formal coach learning.

Within a broader umbrella of sport coach learning, it is possible to adapt Craft's [67] definition of CPD to read "all types of professional learning undertaken by coaches beyond initial certification." If this definition were to be adopted, the term initial certification could arguably replace and encompass 'initial training' (depending upon the focus of the certification process) plus any other nonformal and informal learning undertaken prior to becoming certified. With respect to the term 'professional,' however, it should be noted that coaching remains an 'emerging profession' in many western nations (e.g. UK, Australia, New Zealand) [66, 69, 70]. In the UK, for example, only 5% of the 1.2 million coaches work full-time; but 81% of the 1.2 million coaches are unpaid volunteers [66].

## **FUTURE DIRECTIONS**

A global collaborative effort has recently been initiated to empirically investigate the developmental pathways and activities of expert coaches [15]. The exploration of this area is a welcomed addition that will undoubtedly supplement existing literature by presenting additional information about the formal, nonformal, and informal learning pathways that coaches engage in; plus how and where these 'fit in' to the overall developmental process.

Adult learning literature suggests that learning and teaching preferences are largely dependant upon previous learning experiences and understandings [71, 72]. In reality, a large proportion of the literature on coach learning has tended to focus on expert coaching practitioners. As has already been discussed, these have been shown to favour self-directed learning and therefore engage in activities to match. To date, we have little appreciation of the teaching and learning preferences of coaches across the developmental spectrum – information that is vital to the construction of informed, formalised learning programmes. Research utilising a similar design to McCullick et al. [17], which qualitatively analysed the coach learner's perceptions of the course, is therefore required at all levels of formal certification programmes. This would contribute to a comprehensive picture of optimal structures, content, delivery and methods of assessment for coaches at each phase of this process. It will also help to ensure that those coaches certified are knowledgeable and effective practitioners [17].

## **CONCLUSIONS**

Our understanding of the acquisition of professional knowledge and practice has lacked a clear conceptual foundation. As shown by the uncritical employment of various terminologies, this paper therefore began mapping conceptual territory by offering the concept of coach learning. Relevant literature was reviewed using Coombs & Ahmed's [1] framework of formal, nonformal, and informal learning. It was highlighted that coaches learn from a wide variety of formal, nonformal and informal sources. Although formal and nonformal learning is frequently identified, it is often a relatively low-impact endeavour when compared to informal learning [9]. When reviewing the criticisms of formal learning programmes, it was argued that they have perhaps been incorrectly labelled 'education' when in reality they are more akin to 'training' or even 'indoctrination.' If reconceptualised, with expectations to match, formal learning programmes could in fact effectively achieve desired learning outcomes. The concept of CPD was explored and a modified version of Craft's [67] definition was presented to suit the context of sport coach learning.

Finally, it is hoped that this review will stimulate further discussion and research that will,



in time, lead to the construction of models of coach learning, as well as models for enhancing coach learning provision.

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## **Appendix 2**

# **Reflection in Coach Education: The Case of the National Governing Body Coaching Certificate**

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Research frequently demonstrates that coaches learn by reflecting on practical coaching experience (Gilbert & Trudel, 2001), hence both reflection and experience have been identified as essential elements of coach education (Cushion, Armour, & Jones, 2003). The case being studied was a United Kingdom (UK) National Governing Body (NGB) in the process of developing a coach education program. The purpose of this study was to empirically explore the use of reflection as a conceptual underpinning to connect and understand coach education, theory, and practice. Findings suggest that the curriculum could promote reflective practice, albeit in a largely decontextualized learning environment. Future research should attempt to directly measure, *in situ*, the impact of such courses on coaching knowledge and coaching practice.

The educational development of sport coaches is a complex process, which requires the pursuit of individualized and in many cases ad-hoc learning pathways (Knowles, Gilbourne, Borrie, & Nevill, 2001). Central to this process are national governing body (NGB) coaching awards. These courses have tended to occur in short blocks of time, usually several months and often years apart (Knowles et al., 2001), with minimum follow-up and few opportunities to facilitate the integration of new knowledge into coaching practice. This ad-hoc approach has meant that few “models” of coach education exist, most are atheoretical patchwork models created to meet the needs of a sport governing body to certify its coaches (Cassidy, Jones, & Potrac, 2004). With these issues in mind, it is perhaps unsurprising that a large proportion of coaching knowledge and practice has not come from coach education, but from personal interpretations of previous experiences (Cushion, Armour, & Jones, 2003; Gilbert & Trudel 2001; Gould, Giannini, Krane, & Hodge, 1990).

Some of the shortcomings of coach education perhaps owe as much to a lack of concern for how coaches learn as to other factors. Therefore, the development of a model for coach education would clearly benefit from an explicit theoretical framework. A potential framework in this respect is reflective practice, a process



found at the heart of all experience-based learning theories (e.g., Kolb, 1984; Schön, 1983, 1987). Reflection would appear particularly useful for coach education as it could provide a bridge linking knowledge gained from professional experience, observations, coaching theory, and education. Although conceptualized as a theory of learning from experience, it could also be used to consider knowledge generation and dissemination within a practice field (Buysse, Sparkman, & Wesley, 2003). By adopting reflection in this way, it was hoped that the current study would stimulate discussion about new ways of connecting research, coach education, and practice, with a view to transforming traditional methods of coach education and development.

In part, this process has begun with Gilbert and Trudel (2001), who recently discovered that exemplary youth sport coaches learned by engaging in three forms of reflective practice: reflection-in-action (i.e., during the action present), reflection-on-action (i.e., within the action-present but not in the midst of activity), and retrospective reflection-on-action (i.e., outside of the action present). Moreover, they (see Gilbert and Trudel, 1999, 2001, 2004, 2005) have presented a compelling argument that Schön's (1983, 1987) theory of reflective practice provides an effective framework for analyzing and explaining how these coaches framed their knowledge and learned from practical coaching experiences.

Gilbert and Trudel's (2001) model of experiential learning highlighted six distinct components within this process: coaching issues, role frames, issue setting, strategy generation, experimentation, and evaluation. According to the authors, coaching issues provided the impetus for reflection to occur. Reflection, however, was bound by the coaches' personal approach or philosophy to coaching, which the authors referred to as a role frame (Gilbert & Trudel, 2001, 2005). Role frames acted as filters that influenced which scenarios were and were not considered worthy of reflection (Gilbert & Trudel, 2001, 2005). The third component, issue setting, was recognized as the process of identifying why a situation was conceived as being a coaching issue. Upon identifying a troublesome situation (i.e., labeled as a coaching issue), a reflective conversation was triggered, which lead to the practitioner drawing upon a pool of resources (i.e., coaching repertoire, creative thoughts, coaching materials, advice seeking, joint construction, and reflective transformation) in an attempt to generate a strategy that would address the coaching issue. The strategy was subsequently implemented and its effectiveness evaluated. If resolved, the strategy was perceived to be effective and the coach disengaged from the reflective conversation. However, if the issue remained unresolved, the strategy was labeled ineffective, and the coach returned to the strategy generation phase.

Coach education in the UK has been undergoing enormous change. The UK government created a Sports Strategy Coaching Task Force (CTF) and pledged £28 million (approximately \$50 million US) toward a raft of initiatives, including developing and implementing a national coaching certificate (CTF, 2002), the UK Coaching Certificate (UKCC). The introduction of the UKCC has presented a powerful impetus for change. However, if dynamic, imaginative, and thoughtful coaches are to be developed, those responsible must give careful consideration to content, structure, delivery, and desirable outcomes. Failing to do so could lead to a rebranded version of previous approaches to coach education (Cushion et al., 2003), a product that has been widely criticized by scholars and coaches alike



(Abraham & Collins, 1998; Jones, Armour, & Portrac, 2004). This study, by investigating a NGB in the process of developing a coach education program, aimed to empirically explore the use of reflection as a conceptual underpinning to connect and understand coach education, theory, and practice.

## Method

### The Case and Participants

Using an instrumental case study approach (Stake, 2000) a UK sporting NGB was purposively sampled, as they were in the process of assembling a coach education program in accordance with the UKCC guidelines. Two key NGB employees were charged with constructing the coach education program. Paul (pseudonym) was employed by the organization as Coaching Manager, responsible for devising strategies to enhance coaching practice, which included managing the coach education project. Paul had three years experience working in the NGB's world-class programs. Paul had an undergraduate degree in history and a post-graduate degree in sport and recreation management. Steve (pseudonym) was employed as Development Strategy Project Coordinator and had sole responsibility for constructing plus implementing the new coach education program. Steve was coaching on the world-class programs as the national under 13s coach, a role he continued to undertake throughout the coach education project. Steve held a degree in Sports Studies and a Post-graduate Certificate in Education, plus 20 years experience in education as a lecturer and examiner. All participants gave written informed consent before participating in the investigation.

### Procedures

Data collection occurred over a seven-month period, using three research methods: interviews, observation, and documentation review. Utilizing multiple methods in this manner allowed for the triangulation of data, which can enhance trustworthiness of the research findings (Lincoln & Guba, 1999). Data collection continued until data saturation was experienced, the point at which no new findings were elicited (Patton, 2002). Saturation occurred early, but may be attributed to the NGB's project being in its infancy.

**Interviews.** Interviews were conducted to elicit an in-depth understanding by exploring the how and the why of the phenomenon under investigation (Gratton & Jones, 2004). Three interviews were completed, all at the NGB's headquarters, two with Steve (each 90 min in duration) and one with Paul (60 min in duration). All interviews were semi-structured in nature, employing an interview guide to ensure that certain topics were covered (Patton, 2002), plus maintaining the flexibility to explore additional issues. Topics discussed during Steve's first interview included the following: participant demographics, construction process, program structures, and course design. Steve's second interview attempted to gather information specifically relating to course content, delivery methods, and tutors' role. After having obtained Paul's demographics, the interview continued to further explore the same issues that were discussed during Steve's second interview. Throughout this process, clarification and elaboration probes were employed where necessary to elicit



clear and comprehensive descriptions (Gratton & Jones, 2004). Each interview was audio-taped and immediately after the interview, transcribed verbatim.

**Observation.** A five-hour technical panel meeting was observed, during which detailed field notes were compiled (Marshall & Rossman, 1999) on issues relating to construction process, course design, course content, delivery methods, and tutor's role. The meeting was audio-taped, allowing transcribed verbatim. The meeting comprised of five NGB employees: Jack (Development Officer), Joanne (Development Officer), Paul (Coaching Manager), Steve (Development Strategy Project Coordinator), and Tim (National Coach). The observer was situated in a corner of the meeting room with 4 of the 5 attendees facing away from the researcher. It was hoped that this would minimize researcher interference, although contamination through the researchers' presence cannot be nullified.

**Documentation Review.** Modern organizations like sport governing bodies are dependent upon paperwork (Atkinson & Coffey, 1997). Consequently, documentation review was regarded as a window through which to understand the construction of coach education (Watson, 1997). Artifacts reviewed included information provided directly (i.e., information given to the researchers by the organization, which included the NGB's coach education strategy and various draft course materials) and indirectly (i.e., information available on the NGB's web site) by the organization. When reviewing the documentation, information relating to the following was identified: construction process, course design, course content, delivery methods, and tutor's role.

## Data Analysis

Data analysis in this case cannot be depicted as a number of distinct phases within the research process (Bryman & Burgess, 1994). Instead, through abductive analysis, data collection and analysis were developed simultaneously as a dialectic process. This involved a continuous transition back and forth between data collection, reflection upon experience, and relating these to broader theoretical concepts. Abductive analysis can be conceptualized as a combination of deductive and inductive thinking (Denzin, 1978). Theory and practice are therefore perceived as informing one another, as data do not speak for themselves but instead must be interpreted through theory (Denzin, 1978).

Initially, an inductive approach allowed themes to emerge from the unstructured data before, during and after their collection. Three themes emerged from the unstructured data: coaching philosophy, curriculum, and delivery. As the research process evolved, a deductive approach to data analysis was embraced, after which data were categorized under the six components of Gilbert and Trudel's (2001) model of experiential learning (i.e., coaching issues, role frames, issue setting, strategy generation, experimentation, and evaluation). The abductive analysis process was considered particularly useful as it allowed the phenomenon to be interpreted from a theoretical frame of reference (Dey, 2004).

One of the strengths of abductive analysis is developing theory by placing and interpreting phenomenon from a new frame of reference (Danermark, Ekström, Jakobsen, & Karlsson, 1997). In this case, reflection was given a new frame of reference to compare and evaluate the potential learning experiences offered by the



new coach education program. All of the interview, observation, and textual data were therefore subject to deductive analysis, grouping data under the six categories of Gilbert and Trudel's (2001) model of experiential learning. This enabled the researchers to evaluate the NGB's coach education program within a framework of reflective practice to develop an understanding of how the content and delivery of the awards could influence the coaches' development of knowledge and practice.

## Results and Discussion

### Role Frames

**Coaching Philosophy.** No coaching award should assume that coaches arrive as empty vessels waiting to be filled with coaching dogma (Cushion et al., 2003). The data from this study suggested that the NGB recognized that a coach's philosophy and past experiences would influence his or her practice. The NGB therefore proposed to increase role frame awareness by having the coaches explore the relationship between ethics, values, attitudes, and practice:

The aim of this section is to heighten your awareness of your own ethics, values and attitudes. By undertaking this exercise you can develop your own philosophy of coaching. Without it, the tendency will be to always adopt the prevalent philosophy, this being the "professional or elite sports model that emphasizes winning" Martens (1988). This may not be the appropriate philosophy for many children. (Draft level 1 material, 2004)

Role frames significantly impact upon the learning process, filtering what information is most salient for the coach (Gilbert & Trudel, 1999, 2004). Coach education should help practitioners develop an appreciation of their role frames (Gilbert & Trudel, 2004), as this is a critical element of personal and professional development (Argyris, Putnam, & McLain Smith, 1985; Schön, 1983). An analysis of role frames allows the practitioner to "critically examine the underlying components that guide and influence his or her behaviors" (Gilbert & Trudel, 2004, p. 40), knowledge that is essential for constructing a coaching philosophy. By building this process into the award, the UKCC in this case could potentially increase awareness and understanding of role frames and philosophies. However, success will be dependent on how the topic is delivered. A brief analysis of beliefs, values, and philosophies is unlikely to be able to compete against the coaches' well established role frames and may therefore have limited impact on coaching practice (Gilbert & Trudel, 2004).

### Coaching Issues, Issue Setting, Strategy Generation, Experimentation, and Evaluation

**Curriculum.** Coaching research suggests that reflection is initiated by critical incidents. It is by overcoming these practical dilemmas through constructing, implementing, and evaluating strategies that learning occurs (Gilbert & Trudel, 2001). The NGB, however, utilized an outcome-based approach to developing their coaching curriculum:



... we (individuals involved in the project) have tried to address it from what are the needs of this coach and delivering at the level we are qualifying them to do. That's number one priority ... we are looking at it from what the person needs when they go out and operate. (Paul, 2004, Interview)

This could be considered in light of issue setting within reflective practice. Content will not be coach-centered, but instead shall focus on delivering a predefined set of learning outcomes. Further supporting this is the NGB's intention to present coaches with model sessions to demonstrate the implementation of pedagogical content knowledge. As the following indicates, the NGB hoped that these visual demonstrations would enhance the coaches' confidence in practical situations:

The key thing they (coach learners) have got out of it is applying NEDPECs (Name, Explain, Demonstrate, Practice, Evaluate, Correct, Summarize), not only thinking about it in theory but seeing it applied.... We (individuals involved in the project) feel that gives them (coach learners) a lot of confidence going into the afternoon. [Now] they have seen it done they can apply this same thing to their coaching of strokes to their partner. (Paul, 2004, Interview)

Abraham and Collins (1998) suggested that coaches are often presented with a "gold standard" (p. 71) of coaching behavior to mimic. It could be argued that presenting coaching in this fashion could trigger reflective conversations, requiring the coaches to recognize issues, deliberate over strategy, and try out solutions. Through engaging in reflection-in, reflection-on, and retrospective reflection-on action (Gilbert & Trudel, 2001), coaches could begin to evaluate the effectiveness or ineffectiveness of their strategy and the efficiency of its implementation. However, coaches would in fact be evaluating their coaching practice against the gold standard model. It could be suggested then that a standardized curriculum attempting to present distilled craft pedagogy, in the forms of tricks of the trade, is therefore unlikely to adequately produce reflective practitioners or prepare candidates for professional practice. Learning should in fact be located in the "swampy lowlands of practice" (Schön, 1987, p. 3), as only there can learning be tailored to address practical dilemmas associated with the complex reality of the practitioners' coaching process (Jones, 2000).

The data from the present study demonstrated that the UKCC, at the levels 1-3 at least, would focus on the provision of procedural information in the form of craft pedagogy. Although this would appear to fulfill a requirement of increasing coaches' knowledge base, the acquisition of procedural knowledge alone could lead to the practitioner being unable to adapt to novel situations (Anderson, 1982). Hence, by utilizing this approach, coaches attending these initial awards are unlikely to assemble an in-depth theoretical understanding behind coaching practice. Neither are they likely to acquire intellectual and practical competencies, namely independent and creative thinking skills (Jones, 2000) necessary for them to become what Schön (1983) described as an artful practitioner. Instead, candidates are likely to perceive coaching as a problem solving exercise that entails the application of theories and techniques to a set of general coaching issues (Schön, 1983, 1987). However, upon returning to their own coaching context, practitioners are likely to discover that "real-world practice does not often present well-defined problems" (Wong, Kember, Chung, & Yan, 1995, p. 48).



The NGB recognized the importance of practical coaching and intended to present its coach learners with the opportunity to conduct real-world experiments to test their coaching practice. It was envisaged that these incidents would comprise peer coaching, during which the coaches would attempt to implement theory through the practical coaching of fellow candidates:

We (individuals involved in the project) have got a lot of coaching practice in there (the course curriculum), but what we do is integrate the coaching theory . . . so there is loads of practice with a candidate coaching another candidate key skills. (Paul, 2004, Interview)

This design was implemented as the NGB felt that their previous program, which focused on presenting theory in a classroom, failed to provide candidates with the skills, knowledge, and confidence to practice in a coaching environment:

The common thing that comes back from the people (coach learners) . . . is they are frightened of actually putting that (theory) into practice because the course does not give them the opportunity to put that (theory) into practice. . . . What they actually need is some of that experience in the course. (Steve, 2004, Interview two)

People find it difficult to relate generic theory content to practical application. So we (individuals involved in the project) are trying to give them (coach learners) the generic theory. But then how do you apply this to our sport? [We] give them some ideas, give them some examples, so they can feel confident going out and doing that themselves. (Paul, 2004, Interview)

Both respondents were keen to stress the importance of practical coaching, providing inexperienced coaches the opportunity to coach children as opposed to their adult peers:

When going over to Denmark . . . I told them we (the NGB) didn't have guinea pig players on our courses, [they said] is that not like trying to learn to drive without being in a car? . . . Previously coaches have only had contact with players under assessment conditions. We (individuals involved in the project) feel that there should be the opportunity for them (coach learners) to work with players, but with the tutor helping them, rather than just under assessment conditions, because that is real life practice with players. (Paul, 2004, Interview)

What we (individuals involved in the project) don't want is just the candidates coaching each other. What we would like, as part of their (coaches) learning process, is that we have actually got kids coming in here . . . because that is what they are going to have to do [in the field]. (Steve, 2004, Technical panel meeting)

The data have shown that candidates would be presented with the opportunity to coach course peers and potentially "guinea pig" athletes, thus allowing the trainee to test strategies through real-world experimentations (Gilbert & Trudel, 2001). Although this approach could impact upon coaching knowledge and practice, this "methods-and-materials orientation" (Lawson, 1993, p. 155) presents coaching as



a mechanistic process that can be delivered, acquired, and implemented in a standardized manner. An inherent problem associated with this approach is the decontextualized nature of learning. When acknowledging the complex, idiosyncratic nature of the coaching process (e.g., Cassidy et al., 2004; Cushion, 2001; Lyle, 2002), it becomes apparent that a standardized curriculum, promoting a “one size fits all” pedagogy, is unlikely to adequately prepare candidates for the diversity of coaching practice. Indeed, it has been argued that “without the contextual frame of reference the learning has little relevance” (Cassidy et al., 2004, p. 34).

**Delivery.** The NGB wanted to develop a more interactive delivery style for its courses, and move away from more traditional didactic teacher lead delivery, as the following demonstrate:

The delivery style we (individuals involved in the project) want is an interactive delivery style to make candidates think. . . . It can't be delivered chalk and talk, telling people how to do things. (Paul, 2004, Interview)

It (the relationship between the tutor and the candidate) should not be one way traffic, a good tutor facilitates. (Jack, 2004, Technical panel meeting)

Such a delivery style would seem favorable to the development of reflection, particularly strategy generation and evaluation, as the use of a facilitative style could be seen to promote reflective practice and critical thinking. By conceiving the tutor as a facilitator (Lyle, 2002), who utilizes “why?” and “what if?” questions, the NGB could present the learner with the opportunity to critically reflect upon their practice. However, the outcome of fixed issues and coaching practice in decontextualized coaching scenarios is likely to be degrees of reflection within a given group. Instead of evaluating the contextual factors that influenced implementation, coaches might be more inclined to reflect on their delivery in comparison to the model demonstration presented by the tutor.

## Summary

The present study suggests that reflection can be a useful concept against which coach education can be considered. In so doing, it has been argued that the NGB's new program could facilitate reflection-in, reflection-on, and retrospective reflection-on action as it has elements of reviewing role frames, highlighting coaching issues, presenting coaching strategies, and provides opportunities for experimentation and evaluation. However, the prescriptive decontextualized nature of the awards is unlikely to develop Schön's (1983) notion of “professional artistry.” Instead, the NGB's coach education program is likely to develop two-dimensional, mechanistic, coaches who are ill prepared for the diversity associated with indeterminate zones of practice (Schön, 1983, 1987). Given that the NGB was in the early stages of the developmental process, it was not possible to directly evaluate its delivery, plus impact upon coaching practitioners. Further research is required before establishing a detailed appreciation of the UKCC's impact upon coaching knowledge, practice, and the athletes' experience.

It has been demonstrated throughout this study that reflection offers a conceptual framework to connect and understand coach education, theory, and practice.



Those responsible for the provision of coach education should be urged to shape learning around practical, contextualized coaching experience and have practitioners reflect upon it. This orientation would allow the learner to construct, implement, and evaluate strategies that attempt to overcome dilemmas specific to their coaching process and practice. This process could be assisted, for example, by the formation of communities of practice (Lave & Wenger, 1991), lead by coach educators promoting peer assessment, and facilitating the sharing of information, experiences, and resources. Moreover, mentors could facilitate engagement in the reflective cycle through supervised field experience. By having practitioners critically reflect upon coaching experiences, mentors could help the trainees become increasingly aware of the dynamics specific to their coaching context, current level of coaching knowledge, and individual coaching philosophy, plus how these directly relate to coaching practice. Indeed, it is through this process that coaches become conscious of their behaviors and develop a rationale behind these actions (Cushion et al., 2003). Through adopting these approaches, it is therefore envisaged that trainees would be presented with a supportive learning environment that attempts to maximize learning from practical coaching experiences.

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*Manuscript submitted: July 15, 2005*

*Revision received: February 6, 2006*

## **Appendix 3**



## **Interview Guide**

### *Demographics*

- Name?
- Number of years coaching experience?
- Current job title – What are you contracted to do within this position?
- Previous positions?
- Level of athletes – What competitions do you prepare your performers for?  
How many major competitions have you attended as a coach?

### *Coaches Knowledge*

- What do you consider to be the coaches' role?
- What activities do coaches typically engage in?
- Given the roles, responsibilities, and activities discussed what specific areas of knowledge does a coach require?

### *Knowledge Sources*

- From what experiences, activities, and sources have you acquired your coaching knowledge and behaviours?
  - Example of how it directly impacted upon your knowledge and practice!
- How important do you think it is to have been an elite athlete before coaching?  
What are the benefits of having been an elite athlete?

### *Funding*

- How are your professional development activities typically funded?

### *Barriers*

- Are there any barriers that stop you from engaging within professional development?

### *Reason*

- Why do you engage within professional development?

### *Sports Related Educational Course*

- What professional development activities have you undertaken?
- What are your views regarding the activities you have attended?
- Are there any activities that you feel were particularly effective and why?
  - Example of how it directly impacted upon your coaching knowledge and practice!
- Are there any activities that you feel were particularly ineffective and why?

### *Future provision*

- If you were given a magic wand, how would you re-design coach education and CPD to better cater for the development of coaching practitioners?
- Are there any other means by which your NGB could have supported your development as a coach?

# **Appendix 4**



## **Coach Education & Continuing Professional Development: Provision for UK Sport Coaches**

As you are probably aware coach education and continuing professional development (CPD)\* have been identified as a key means of enhancing coaching knowledge, coaching practice, athletic success, and the professional status of coaching. Funding for coach education and CPD is therefore becoming increasingly available, yet we have little information or understanding on what constitutes effective coaching professional development.

Brunel University has funded a three-year project into the professional development activities of, and provision for, UK sport coaches. By working in collaboration with Sports Coach UK and the Rugby Football Union we are attempting to understand what you, as an experienced rugby coach, think about the professional development activities you have undertaken, plus what recommendations you feel might enhance its future provision.

We would like to make it clear that you are not obligated to participate within this study. However, the data obtained would undoubtedly help the Rugby Football Union, and other UK providers, ensure that future provision matches up with your expectations as a coaching practitioner.

If deciding that you wish to participate in the study, please ensure that you answer the questions below as fully as possible. The questionnaire has an open-ended format enabling you to raise professional development issues that you feel are important for the sport coaching profession. We have asked for your personal details so that we can follow-up any queries. However, please be assured that you will not be identifiable in any research reports.

*\*NB: the definition of CPD used in this study is extremely broad, including all professional development activities (e.g., coach education awards – to - personal development) undertaken since completing your level two coaching award.*

Please note that the information that you give will only be used for this study. In advance we would like to take this opportunity to thank you for taking the time to complete this questionnaire.

Name

Male / Female

Number of year's coaching

Club

Coaching job title and key responsibilities

1. What do you consider to be the coaches' role?

2. What knowledge is required to fulfil this role?

3. Please describe the various activities you have engaged in to enhance your coaching knowledge and practice (e.g., coach education courses, conferences, books, scientific articles, professional articles, magazines, internet, videos, shadowing other coaches, talking to colleagues, mentoring, coaching experience).



**4. Reflecting over your coaching career, list all the sports related education courses that you have undertaken. This list doesn't have to be in any specific order. Please feel free to write on the reverse of the sheet if further space is required.**

[illegible]

5. For what reason(s) do you engage in the professional development activities listed in questions 3 & 4?

6. Can you highlight any professional development activities (i.e., those listed in questions 3 & 4) that have been particularly effective, and explain why this was the case?

7. Could you now list any that have been particularly ineffective or unhelpful, explaining why?

8. Reflecting upon your professional development experiences, please provide specific examples of how it has enhanced your coaching knowledge?

9. Linked to the above, can you describe, providing examples, how professional development has altered your coaching practice?



10. How do you think your professional development activities have impacted upon your athletes sporting experiences (please provide specific examples)?

11. How are your professional development activities typically funded?

12. Looking ahead to the forthcoming year, can you list any professional development activities that you are planning to undertake?

Title/nature of activity	Duration	Location

13. Are there, or have there been, any specific barriers preventing you from undertaking professional development?

14. From your experiences, what do you think makes professional development effective?

15. In your opinion, what makes professional development 'disappointing' or 'ineffective'?

16. What advice would you give coach educators to enhance the professional development of UK sports coaches?

*Again, thank you for your time completing this questionnaire.*

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Please return this questionnaire in the prepaid SAE provided.