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The Coaching Process of the Expert Coach: A Coach Led Approach.

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Abstract

The purpose of this study was to engage expert coaches' in an exploration, conceptualisation, and modelling of their coaching process. Six coaches, each developed a model, with accompanying explanation, of 'their' coaching process. These models and explanations were content analysed to identify features of the coaching process and included examination of how to represent the process pictorially. The coaches were then interviewed where they discussed the identified features and how to represent their coaching process as a 'realistic picture'. As a result of this process of data collection, analysis, and member checking, the coaches' conceptualisation of the coaching process and how best to model it was agreed amongst participants. There were seven core principles that underpinned the model: learning partnership; individualised; clear structure with evolving process; orchestrating approach; influenced by coaching environment; holistic and flexible process; and adaptable and dynamic; and six components parts that described the operationalisation of the coaching process: values, knowledge, and skills; contextual constraint; learning environment; preparation phase; performance phase; review phase. The agreed upon pictorial representation of their coaching process brought the process 'to life' and provides researchers, coaches, and coach developers with a conceptualisation of the process by coaches for coaches.

Keywords: coaching process model, coaching practice, expertise, coaching education

Introduction

The coaching process has been debated for many years, this debate ranges from establishing what it is and how its 'component parts' fit together (Côté, Salmela, Trudel, Baria & Russell, 1995; Cushion, Armour & Jones, 2006; Lyle, 2002; Mageau & Vallerand, 2003), to who is the driving force behind it (coach, athlete, organization, culture or environment) (Chelladurai, 2007; Jones & Standage, 2006; Potrac & Jones, 2009). Despite attempts to provide conceptual clarity (e.g., Lyle, 2002) there is as yet no agreement upon conceptualisation. However, common features include the involvement of at least two people, coach and athlete. Coaching is, therefore, a social activity benefiting from interpersonal skills. It is complex and dynamic, and yet also goal-oriented, focusing on bringing about change, usually an improvement in the athlete's performance. Furthermore, it involves a range of activities and skills employed to bring about the desired changes. How, and even if, the process can and should be modelled continues to spark controversy (Barnson, 2014; Cushion, 2007). Researchers have not, yet, captured the subtlety and scope of the coaching process in specific contexts (Cushion, 2014), leaving coaches without a clear set of concepts and principles that reflect actual coaching practice (Cushion et al., 2006). Therefore, the purpose of this study was to engage expert coaches' in an exploration and conceptualisation of the coaching process and the development of a model of their coaching process.

A clear conceptualisation of the coaching process can inform coaches' education and development, support coaches' desire to improve (Abraham, Collins & Martindale, 2006; Lyle, 2002), assist coaches to provide quality experiences for participants, and progress the profession (Côté, et al., 1995). Barnson (2014) suggested that it is foolish for coaches to attempt to coach without some form of

principled template and that it is coaching science's role to support the development of such a 'unifying platform' (p.73). A recent advancement has been the International Sport Coaching Framework (International Council for Coaching Excellence, 2012), which proposed conceptual clarity regarding the coaching contexts, roles, and competencies, and how they inter-relate. This framework was designed to support coach development and professionalism within all coaching domains, and as such provides a broad overview of coaching. It was not, however, intended to provide detail about how the process is operationalised.

One approach to provide this operational detail is the use of coaching process models (Cushion, et al., 2006; Gilbert, 2007). Models provide a representation (often diagrammatic) of the key components and their relationships to one another. Their use has, however, been debated. For example, models have been criticised for underplaying, even ignoring, the contextual nature of coaching (Cushion, et al, 2006). Diagrammatic models have been criticised for their unproblematic representation of this complex process (Jones, 2006). In addition, the most commonly used two dimensional model representations have been identified as a limiting factor to portraying the process (Cushion, 2007, Lyle, 2002). Despite these criticisms, there continues to be interest in and attempts made to model the coaching process. Models can provide a means to share understandings of the process, provide some structure to the complex, dynamic activity, and guide development of key coaching skills (Brewer, 2007; Mallett, 2007).

Several notable coaching process model contributions include: Fairs' (1987) 'objectives model' which described a five-step process reflecting a problem solving approach; a 'mental model' of the coaching process based on their exploration of gymnastic coaches' perceptions of coaching (Côté et al., 1995); a comprehensive

model that embraced the 'wholeness' of the coaching process, showing its many interactions (Lyle, 2002); and Abraham et al.'s (2006) 'coaching schematic' that aimed to be applicable to all situations and contexts. Recently, Barnson's (2014) 'authentic model' took a different view of the coaching process by modelling the opposing tensions within the process forming what he refers to as the coaching paradox. Other frameworks to conceptualise the coaching process have centred on concepts such as leadership (Chelladurai, 2007); motivation (Mageau & Vallerand, 2003); efficacy (Feltz, Chase, Moritz & Sullivan, 1999); effectiveness (Côté & Gilbert, 2009); empowerment (Kidman, 2005), relationships (Jowett, 2007) and orchestration (Jones & Wallace, 2005).

This work varies in how the models and frameworks have been established including exploring coaches' perspectives on coaching, observing coaches in action, soliciting athletes' perspectives on their coaches and coaching. Each conceptualisation reveals commonalities with others and also unique features. For example, Mageau and Vallerand (2003) and Kidman (2005) focused on autonomy support and along with Gilbert and Trudel (2004) recognised the centrality of the athlete and his/her needs. Barnson (2014), Côté et al (1995), Fairs (1987), and Lyle (2002) identified planning, intervening to improve performance, and evaluating effectiveness before engaging in further planning. Others note the importance of the relationship between the coach and athlete (e.g., Barnson, 2014; Gilbert & Trudel, 2004; Jowett, 2007; Lyle, 2002). Despite these contributions to understanding the coaching process, there is not as yet a framework that has gained consensus that represents the complexity of the coaching process (Cushion, 2007; Cushion et al., 2006; Gilbert, 2007; Jones, 2006; Jones, Armour & Potrac, 2002; Jones & Wallace, 2005).

Further work is needed to better understand the nature of the coaching process. We argue that research must be conducted for coaches to support their understanding and development and any resultant conceptualisation, including any diagrammatic representation, should be realistic and meaningful for coaches. With this in mind, we contend, as others have (e.g., Cushion et al, 2003; Gilbert, 2006; Greenwood, Davids, & Renshaw, 2012), that the coaches, themselves need to be integral to the research process. From listening to coaches' experiences in their contexts and involving them in the research process, rather than as just subjects of research, we will better understand the pragmatic constraints of these contexts (Cushion et al., 2003; Gilbert, 2006; Greenwood et al, 2012). Self-report approaches have been successfully employed to examine topics such as the coaching process (Côté et al, 1995), role and process during competition (Allen & Ritchie, 2015), micro politics (Potrac & Jones, 2009), and role frames and philosophies (Nash, Sproule, & Horton 2008). In this study, we also aimed to listen to the coaches and fully engage them in the research process through active involvement in refining findings and developing the model. Therefore, the purpose of this research was to learn from the coaches themselves by letting them explain their coaching process and involve them in developing a 'realistic picture' that can support the work of coaches, coach developers, and researchers.

Method

Participants

Six coaches considered expert in their practice were invited and agreed to participate in the study. A summary of each coach's level of expertise is presented in Table 1. They all coach in the same coaching domain, kayaking and canoeing, where they work with a range of learners, including children and adults, whose focus may be

development for competitive (i.e., racing, competitions, events) and/or non-competitive (i.e., participation, personally-referenced challenging environments, lifestyle) reasons. For the purpose of this research the term ‘learner’ has been adopted to represent performers, athletes or other similar terminology.

Gilbert and Trudel (2004) identified that too few studies developed findings from coaches who exhibited styles or practices that should be copied. Consequently, there is a need to exhibit just ‘how good’ coaches used in studies really are. We employed commonly used criteria for establishing expert status such as the number of years coaching, coaching qualification, performance level, and recommendations by National Governing Body (NGB)/peers for their expertise (e.g., Abraham et al., 2006; Côté et al., 1995; Nash, Martindale, Collins & Martindale, 2012; Saury & Durand, 1998). This research has identified 10 years coaching as a minimum for expertise. The coaches in the current study had between 20 and 30 years coaching experience, with between 12 and 21 years coaching holding the highest coaching award in their sport (British Canoe Union Level 5 Coach). The six coaches do not meet the successful international athlete criteria. This is primarily due to their coaching domain being either non-competitive, more participation-based, or working with children in a competitive setting. Within their non-competitive domain however, they were regarded by their peers as successful international performers in their achievements of exploration and performance in extreme environments. Examples of these achievements included: leading the first British team to sea kayak around the southern cape of Greenland, white water expeditions to South America, canoe expeditions to Canada and white water expeditions to the Himalaya. Their expert performance level was further evidenced by all the coaches being sponsored performers by equipment manufacturers, having performances recorded in sport specific magazines and having

published material in their areas of sporting expertise. All six coaches were recommended by their NGB and regularly provide technical and educational support for the NGB and its coaches. Therefore, using Côté et al.'s (1995) and others' (e.g., Abraham et al., 2006; Nash et al., 2012) criteria of coaching expertise the six coaches in this research could be classified as expert. In addition, the six coaches who participated in the current study had successfully completed the UKCC Level 4 programme which includes engagement in postgraduate study where they identified their own coaching processes and associated expertise. In their study of elite coaches' experiential knowledge of athletes' performance, Greenwood et al (2012) suggested that researchers' reluctance to engage coaches in the research process may be due to concerns over the coaches' lack off technical vocabulary to adequately describe theoretical ideas. Nash et al. (2012) also suggested that the selection of expert coaches for research purposes would do well to take into account the cognitive expertise of the coach, and perhaps their ability to explain the processes and knowledge structure behind their expertise. Therefore, in addition to meeting the criteria for selection as expert coaches outlined above, as a result of their postgraduate studies, the coaches in the current study were also deemed to have the cognitive expertise to engage fully in the research process.

Procedure

Following ethics approval from the authors' institution, the first author, who is also a coach in the participants' coaching context, employed the selection criteria above to identify six expert coaches. They were invited, and agreed to participate in the study. Consistent with ethical procedures, it was made clear to participants that they were volunteers and a decision to participate (or not) would have no bearing on their postgraduate study. As a starting point for the data collection and analysis,

participants were asked to share with the researchers' the model and accompanying explanation of their coaching process which they had created at the beginning of their postgraduate study. As these had been part of their coursework at the time, the coaches had the opportunity to add to or change their model and explanations. None of the coaches chose to make changes and indicated that they were comfortable that the models provided an accurate reflection of their coaching process. These models and explanations were analysed to identify the core coaching principles and component parts that make up the coaches' coaching process. The coaches were then interviewed. In the interview, they were shown the identified principles and components, encouraged to discuss them further and challenge the preliminary principles and components. They were also asked to suggest how best to represent the coaching process as a realistic picture. This process was conducted by the first author, who was not involved in the teaching or assessment of the postgraduate programme. Therefore, the six expert coaches were at the heart of the process by providing the initial data and then commenting and influencing the final results. This resulted in coaches who were actively engaged in the research process (Cushion et al, 2003; Gilbert, 2006) as well as the use of multiple methods which both sought to ensure the integrity of interpretations of data (Gilbert & Trudel, 2004).

Data Collection

Coaching process model and explanation. As part of the six coaches postgraduate study they each produced a written piece of work in which they described and justified a model of 'their' coaching process, including an explanation of the theory and practice on which it was based. This work provided the data for developing initial principles and components of the coaching process and how to represent a 'model' of the process.

Interviews and member checking. All qualitative researchers must contend with the fact that they are selecting which 'bits' they think are important, which elements they believe are convincing and thus they are choosing to disregard other sections of data (Taylor, 2014). To enhance the credibility of the data and representation of the coaching process, feedback was sought from the expert coaches on the preliminary core principles, component parts, themes and model representation (Côté et al., 1995). Semi-structured interviews were conducted with each of the expert coaches as part of a member checking process of the preliminary findings and further develop the model representation.

A one-to-one semi-structured interview approach allowed for an in-depth examination of the coaches' attitudes, opinions, beliefs, and values with respect to the core principles, component parts, themes and model representation (Purdy, 2014). Consistent with 'good practice' recommendations for semi-structured interviews (e.g., Patton, 1990; Purdy, 2014), the interviews included pre-determined questions that were used as a guide, but they allowed for flexibility to explore additional areas that emerged through discussion. The questions encouraged participants to discuss the principles and themes, the content and names given to each and the extent to which they captured what they do. They also encouraged participants to challenge the principles and components and provide additional information or remove redundant information. The coaches were also asked about the value of a model and how best to represent the coaching process. All the interviews were conducted by the first author and lasted 30 to 45 minutes. To ensure a complete and accurate record of the discussions the interviews were recorded.

Data Analysis

As outlined by Patton (1990) a sensitising approach was used to interpret the data from the six pieces of work. The first author had an initial concept and opinion of the coaching process and its representation. This was used as a general sense of reference, which would be developed as part of the research process. Using this approach, content analysis (Patton, 1990) was used with the data, which included identifying, coding and categorising the primary patterns. To do this, initial 'open coding' (Taylor, 2014) was used to identify words and phrases that represented the core principles and component parts of the coaching process. Following this, axial/focus coding (Taylor, 2014) was used to group the above words and phrases into lower and higher order themes. During axial coding an identified component part of the coaching process had to have been identified by at least two of the coaches to be deemed valid and be categorised. This process produced 10 preliminary common core principles of the coaching process and 38 component parts that were preliminary categorised into six higher order themes of the coaching process. The themes represented how the expert coaches' organised and constructed their knowledge (Côté et al., 1995). The themes were then represented in a preliminary model of the coaching process. The preliminary model was produced by examining the 6 models the coaches had produced and identifying commonalities and unique features in the core principles and components and how they had represented their models. Four of the coaches' models each contained the majority of the identified principles, parts and themes, two of these attempted to present their model in a 3-dimensional way. A common suggestion from the coaches was the need for a 3-dimensional model, so the preliminary model was based on combining these two models. One 3-D model used DNA as a metaphor to capture the coaching process model, including the helix structure. This metaphor formed the overall 'shape' of the preliminary model. The

other 3-D model described layers in the coaching process model which were incorporated through the addition of 'membranes'. In combining the models all the principles, parts and themes were included, and the preliminary model was then further developed and refined through the member checking process.

During the interviews notes were taken and these were added to by listening to each of the interviews 3-4 times afterwards. This produced a partial transcription of interview where the simple descriptive parts were noted (e.g., number of international expeditions) and more complex focused areas of the interviews where fully transcribed (Patton, 1990). The interview guide then allowed for cross interview analysis, where answers were grouped together from different people to common questions (Patton, 1990). Taking on board the coaches' comments, as part of this member checking process, the preliminary coaching process core principles, component parts, and model representation were revisited and developed further as necessary. All the coaches identified that the core principles were a necessary part of understanding their coaching process. In fact, they could be seen as forming an underpinning philosophy of the coaching process that informed which component parts were included in the model and importantly how they interacted and were applied. Although there were some differences and discussions of the exact wording, as well as some overlap in some principles, 7 principles were agreed as being central to the process. The coaches agreed with all the component parts, any variance of opinions here was the perceived importance of them as opposed to whether they are part of the coaching process or not. This variance could be attributed to the coaches' coaching background and learner groups, an example being C5 who works with junior kayak slalom competition athletes versus C2 who runs his own bespoke private coaching business primarily for adults.

The interviews and member checking processes were critical in the development and refinement of a representation of the coaching process. The resulting model is presented and discussed in the results section, however, at this point it is useful to provide examples of the valuable input provided by the coaches. The model representation generated the most discussion, in particular, the relationship between the 'inner helix' and the 'permeable membranes'. For example, a key modification was that the membranes should be permeable and therefore, act as a 'sieve' of the two-way flow of influences on learning. The 'outermost membrane' was also modified, with the 'values, beliefs and knowledge' forming this membrane as opposed to the original 'contextual constraints'. The 'inner helix' was also modified to allow for the coach or the learner to be the initiator of the process. This was because the coaches indicated that the process only happened as long as the learner was part of it and that the coach did not need to be in the 'helix' (process) all the time. The need for continuous 'in action' reflection was also identified, this allowed the past and present to inform decisions for the future at any stage of the learning. The final key concept agreed during the member checking process was how the model should be used. The coaches agreed it should guide rather than prescribe and that capturing the adaptable and flexible nature of the model was important to all coaches.

Results and Discussion

It was clear that there was a common set of principles that underpinned all of the coaches' views of the coaching process and their associated models. It was these core principles that shaped, not just the component parts of the model, but more importantly how the parts interacted, were portrayed and most importantly applied. Understanding them, allows others to consider them in their own coaching application and interpretation of the model. These identified core principles, component parts,

and model of the coaching process are described in the following separate sections. Although represented separately, it is important to remember that the principles and component parts are all interconnected in the coaching process. To show these interconnections, they have been represented in a model of the coaching process which is described and discussed, along with a pictorial representation, in the final section.

Coaching Process: Core Principles

Seven core principles were identified that provided the foundations for the expert coaches' coaching process (see Figure 1). These were: learning partnership, individualised, clear structure with an evolving process, orchestrating approach, influenced by the coaching environment, holistic and flexible process, and adaptable and dynamic. Next, each principle, along with the lower order themes that comprise each principle, is described and discussed in turn.

Learning Partnership

The relationship between the coach and the learner was deemed important by all the coaches, this interaction shaped the coaching process and model's construction and use. The coaches' identified three main areas that make up this learning partnership: learning focused, a partnership, and coach or learner led.

Learning focused. Whether it is the coach in control, the learner or indeed the environment having an influence, the coaches believed that learning should always be at the heart of the coaching process and the primary focus. The general opinion from the coaches was captured in the following quote: *"It should be 'learning' focused as opposed to 'learner' [focused]"* (C6). C6 explained further that when the focus is on the 'learner' then the coach may address what the learner 'wants', when the focus is on the 'learning' it can ensure the coach addresses what the learner 'needs'. This

tension between meeting needs versus wants has parallels with Chelladurai's (2007) Multidimensional Model of Leadership and has been identified as a coaching paradox (Barnson, 2014).

Partnership. All the coaches agreed on the importance of a shared process between learner and coach. This concurred with Cushion (2011) who suggested that the coach athlete relationship [partnership] is crucial as neither party has the capacity to determine action unilaterally. C4 captured this by saying: *"Yes, but with the learning partnership the control changes and is flexible".*

Coach or learner led/initiated: Who leads the process was a topic of much debate. The coaches agreed that ideally a learner led approach was desired, but it was appreciated this is not always going to be 'learning focused'. C2 suggested: *"coach controlled, athlete led"* and C5 explained: *"It is not always 'learner initiated' they don't know what they need to learn from the start, the coach can therefore initiate this by 'opening the treasure chest' – coach initiated but athlete led".*

A 'learner led' approach is facilitated through the learning partnership; learner needs are identified by coach and learner, and then agreed. Such a learning focused partnership is consistent with Kidman (2005). Although coaches preferred the process to be initiated by the learner they recognised that this might lead to the pursuit of learner 'wants' rather than 'needs' and limit learning. By remaining learning focused and agreeing 'needs' with athletes, the coaches were at times initiating or controlling but at the same time facilitating the learner to lead the process. There is also recognition of a need for structure (coach-initiated/controlled) in concert with autonomy support (learner-led) which is consistent with Mageau and Vallerand (2003) motivational model of coach-athlete relationship.

Individualised

Schempp, McCullick and Sannen Mason (2006) stated that the coach must have the individual performer at the heart of the process and a focus on individual performance was critical. The expert coaches all believed that when working with multiple learners the needs of the individual should remain the learning focus as opposed to more generic group needs. C1 captured this when saying: *"every learner is different in their needs and how they learn, my job is to recognise this and support them*."

Clear Structure with an Evolving Process

All of the coaches' models and explanations of the process were based on the plan-do-review structure, a familiar and established model of learning also identified by Wikeley and Bullock (2006). However, the coaches all represented this structure in a continually evolving way and suggested it should not be *"considered a cyclical process"* (C3). This is also seen in the International Sports Coaching Frameworks 'Cycle of Coaching and Continuous Improvement (ICCE, 2012). C6 summarized the way this structure and evolving process works for him *"reflection is key at all stages of the process, reflecting on what I have done before and what is happening in front of me helps me anticipate what will happen next, that feeds my decision-making as the process evolves."* This approach allowed the process to adapt based on reflection, the learning evolving and being led by developing needs.

Orchestrating Approach

The concept of orchestrating or facilitating learning resonates well within coaching (Ritchie & Allen, 2015; Santos, Jones & Mesquita, 2013) and this approach, as part of a learning partnership, was important to the coaches. The control within this partnership needed to be flexible however as *"within orchestration the control often needs to be more with the coach in our domain"* this being often *"from a safety point*

of view" (C4). An example of this was given by C1 when he described coaching sea kayaking in a high risk environment, the learners did not have the experience to make considered decisions regarding their personal safety in relation to their ability to perform. In this situation he 'controlled' the practice and learning to ensure experience was gained but safety maintained.

Influenced by Coaching Environment

The expert coaches' felt that in their coaching process the *"physical environment needs to be there as the key influencer"* (C2). All of the coaches work in a dynamic, high-risk natural environment that incorporates challenging white water rivers, exposed and committing coastlines, open lochs/lakes and ocean surf. In these environments the wind, swell, water and temperature will influence the constant decision-making required to manage risk in a way that promotes learning (Collins & Collins, 2013). The influence of the physical environment on the coaching process has also been identified by expert sailing coaches (Saury & Durand, 1998). Although the physical environment was an important factor, the coaches agreed that the coaching process could equally be influenced by who is being coached, what is being coached or the organisation the coaching is for. Training, competition, participation, adult or children based environments will all have their differing influences that will impact on the coaching process (Nash, et al., 2008).

Holistic and Flexible Process

The coaches recognised that to deal with the complexity of the coaching process and its inherent messiness (Cushion et al., 2006), the process needs to be considered holistically (Potrac, Brewer, Jones, Armour & Hoff, 2000). Within this holistic approach, flexibility could occur to allow the component parts to be used as and when required as opposed to in a fixed order. An example presented by the expert

coaches was their need to respond to the physical environment when coaching. This could be the control moving from learner to coach to ensure the safety of the participants, or the style of feedback and communication adapting to cope with weather conditions.

Adaptable and Dynamic

A key principle for all the expert coaches was that in order to deal with learner, coach, and environment the coaching process needs to be adaptable and dynamic. For example, C2 commented: *"the environment is constantly changing around us, therefore my coaching needs to adapt to accommodate this."*

In summary, the core principles described how the coaches' approach the coaching process. The coaches suggested a process that is a learning partnership. It focuses on learning and the learner is integral to the process and as such it is individualised. The coaches orchestrate the process providing clear structure but also adapting and being flexible to meet the learner's needs and natural environment conditions. The conceptualisation resonates with both athlete-centred approaches (e.g., Kidman, 2005; Mageau & Vallerand, 2003; Ritchie & Allen, 2015) and educational views of coaching (e.g., Cassidy, Jones, & Potrac, 2004; Jones, 2006). The principles were not seen as rules, rather they guided and shaped the coaches' understanding and operationalisation of coaching. As such they can 'be seen' throughout the process rather than existing at any one point. In describing the process in this way, it was clear that the coaches understood and operated within a messy, dynamic, complex process (Jones & Wallace, 2005), however, they also saw structure within the dynamism (Cushion, 2007; Mallett, 2007). Therefore, both commonalities and unique features could be identified, considered, and used to guide coaches' development, quality practice, and participants' experiences.

Coaching Process: Component Parts

The component parts of the coaching process were categorised into six higher order themes (see Figure 2): values, knowledge and skills, contextual constraints, learning environment, preparation phase (planning), performance phase (doing) and review/evaluation phase.

Values, Skills and Knowledge

These were seen as the key factors that underpin the coaching process and influence all aspects of it. This theme included 4 lower order themes: coach/learner knowledge, coach/learner skills, coach/learner decisions, coach/learner philosophy. C5 captured the importance of these by saying *"it is the coach's values, knowledge, skills and decisions that underpin the environment in which the coach operates, the planning they do and the interactions in support of the athlete's learning process".*

The coach's and learner's personal values were central to and shaped the decisions made as part of the process. Barnson (2014) and Kidman (2005) identified this as core to coaching, adding that it is very much coach and learner specific. The coach's and learner's skills and knowledge were also recognised as key factors in the process (cf. Ericsson & Charness, 1994). The coaches believed that these influenced their decision making and subsequently the learning possible and the range of coaching solutions available within the coaching process (Abraham et al., 2006).This could be a decision about the motivational climate fostered or the balance of 'control' in the coaching relationship, alternatively it could be the chosen environment (exposed and committing versus sheltered natural environment) to carry out the coaching session. Each decision would be based on the values, knowledge of the coach and skills of both learner and coach.

Contextual Constraints

This theme included 6 lower order themes that were: environmental context, people and task context, constant contextual adaptions, safety considerations, ability considerations and making best use of environment. The coaches felt the context in which the coaching takes place will potentially have the biggest influence on the coaching process, constraining it or enhancing it. They suggested the characteristics of the context needed constant monitoring to ensure learning is optimised. Similar to the coaches in the current study, Saury & Durand (1998) identified that the actions of the coaches were full of context based, opportunistic improvisations and extensive management of uncertainty and contradictions. The coaches suggested that it is the constant monitoring, adapting and use of these contextual constraints that allows for improvisations to be made and management to be fulfilled. Brymer and Renshaw (2010) identify how by considering these constraints they can be utilized to enhance learning, however without due consideration they can indeed prevent learning.

Learning Environment

The learning environment created and supported by coach and learner was essential in order to nurture and develop the coaching process. This theme included 7 lower order themes: coach/learner relationship, autonomy supportive, motivational climate, learner's actions and perceptions, interpersonal rapport and trust, coaches' actions and perceptions, and caring. This theme encapsulated the learning climate of coach/learner (Allen & Hodge, 2006) and the relationship required to ensure learning outcomes could be met appropriately. In their research with international coaches, Jones et al. (2004) identified this as a fundamental part of the coaching process. In the current study C5 captured the coaches' opinions when he commented: *"the connection between the coach and the athlete [learning environment] is the critical*

aspect, if the coach is going to have a facilitative role in supporting the athlete's learning process."

Preparation Phase (Plan)

Planning was an essential part of the process in order to achieve learning focused outcomes. This theme included 9 lower order themes: planning, goal setting, meeting needs and wants, information gathering, objectives established, coaching structure, Technical, Tactical, Physical, Psychological (TTPP) considered, ability established and time phased. Planning relied on reflecting on past knowledge and previous outcomes, the present situation and anticipatory reflection on the learning to happen. C6 commented: *"we need to show how coaches look back to be able to then look forward."* The coaches' view resonates with Taylor (2006) who suggested that planning provides a map of what has gone before and what is coming up, supporting the coach and learner to achieve agreed goals.

Performance Phase (Do)

This was the 'action' part of the coaching process when the process is clear to see. This theme included 8 lower order themes: observation/analysis, feedback, practice styles, coaching/instruction style, questioning, demonstrations, constant monitoring, and communication. C4 identified this as being the stage where through use of appropriate coaching tools the *"learners' needs comes from their wants through a realisation and understanding of what is required to achieve their goals."* All the coaches had this phase as core to their models. C1 commented: *"this is the heart of the coaching process for me."* Cushion et al. (2006) make reference to coaching being the art and science of decision making, this performance phase is perhaps the artistry as learning is not necessarily sequential, it is multifaceted, social, fluid and highly personal (Jones, 2006). For the coaches to respond and adapt in their

dynamic coaching environments, whilst all the time focusing on meeting individual needs, then as Saury & Durand (1998) identified the coaches felt this phase was crucial to the success of the process.

Review/Evaluation Phase

After a period of performance or 'doing', reflection and evaluation were seen as key. This theme included 3 lower order themes that were: reflection on coaching and learning, evaluate against goals/outcomes and whether change has taken place. This phase it was agreed could overlap the performance to allow 'in action' reflection as well as 'on action' reflection (Schön, 1983). The reflection would not only be against the performance outcomes, but also be the coach's reflection on his/her coaching and learners' reflection on their learning. This reflection constantly considered the first three themes (values, skills and knowledge, contextual constraints and learning environment) in order to support the on-going preparation (planning) and performance (do) phases. C6 called it a *"reflective partnership of coach and student learning together"* and commented: *"reflection is key at all stages of the process, reflecting on what I have done before and what is happening in front of me helps me anticipate what will happen next, that feeds my decision-making as the process evolves"*

In summary, six themes comprising the coaching process were identified and agreed upon by the coaches. They represent a coaching process that is shaped by the values, knowledge, and skills of learner and coach, is sensitive to contextual constraints, seeks to foster a productive learning environment and involves planning, performance and review phases. However, during the member checking process it was identified that on their own the themes appear too sequenced and that they needed the model to support their interpretation of the coaching process from a more

holistic point of view to *"bring to life"* (C6) the component parts. The perceived advantages included enabling them (and others) to 'get the idea': *"It lets me visualise the words attached to the process, I need a picture"* (C2). A model also provided structure and a common ground. Comments included: *"It gives shape to the actions I take."* (C4)*; "It clarifies events and what happens in between."* (C3)*; "It helps to define what we mean and then makes it easier to collectively understand."* (C5). It was important, however, that the structure was not constraining: *"It is a way to allow people to grasp a concept, but then give them the freedom to populate it."* (C6). In the following section the resultant model is described.

Coaching Process: Practitioner Based Coaching Model

The model is illustrated in Figure 3. The metaphor of the DNA helix was used to capture pictorially the coaching process. The analogy with the blueprint for life suggested a blueprint for coaching but as with coaching, the outward expression of DNA is never the same. A key feature of the metaphor was the double helix, the two 'strands' being entwined and evolving together, like coach and learner, surrounded and nurtured by a protective membrane, representing the learning environment and all that influences it. The strands are made up of many building blocks, these are the coaching tools (e.g., observation, feedback, learning opportunities, leadership style). The way the building blocks are combined and the environment influence the overt expression of DNA and so to coaching. And yet just as the double helix is readily identifiable as the structure of DNA, coaching is also readily recognisable.

At the core of the coaching process is the learner and coach interaction, represented by a spiralling and ever evolving helix initiated by the learner or coach. This helix evolves as long as the learner requires it. Here the coach and learner are

546 entwined, providing the opportunity for either the learner or coach to be controlling
547 the process and taking the lead, or it to be shared appropriately.
548 Each spiral of the process represents an opportunity for continuous ‘in action’
549 reflection. This could be during any of the learning phases and allows the reflection of
550 immediate as well as past experiences to inform decision-making. This allows
551 constant adaptation in order to select the appropriate coaching tools for the phase in
552 relation to the learning environment, contextual constraints and underpinning values,
553 knowledge and skills. Each coaching tool chosen joins the learner and coach together
554 in the process; again the ‘control’ of the tool could be purely learner, coach or shared
555 appropriately.
556 The learner and coach interaction evolves through on-going preparation,
557 performance and review phases. There is potential in this process for the ‘coach’ part
558 of the helix entwinement to leave the learning process. With the correct tools in place
559 the learner can continue learning and evolving the process on their own, the coach re-
560 joining the helix if and when required.
561 Surrounding this helix are three ‘permeable membranes’ that are key
562 influences on the learning occurring. There are numerous potential influences but the
563 membranes ‘sieve’ out those that need to be considered. This is a two way process
564 with external influences constantly feeding into the coach learner interaction and
565 reflections constantly feeding out in relation to the key external influences. This
566 allows flexibility in the overall process and appropriate adaptations to be made. The
567 learning environment created is the first membrane. This should nurture and protect
568 the coach/learner relationship. Contextual constraints make up the next membrane,
569 these are the external influences effecting the coaching tools required and
570 environment created, they have potential to impact on learning and need to be

constantly monitored. For example the natural environment (wind, temperature etc.) was a key constraint for the coaches in this study, however this could equally be a competition versus training contextual constraint. The outermost membrane contains the values, knowledge and skills that the coach and learner bring to the process. These influence the use of contextual constraints, shape the learning environment, and tools available to the coach and learner.

The model enables coaches to develop their own 'way of doing things' using the model as a guide (an opportunity to check and challenge) rather than a rule book (Mallett, 2007). By encouraging coaches to individually develop their process 'within' the model, it moves away from the 'paint by numbers' (Jones & Wallace, 2005) and 'systematic' (Cushion, 2007) approach to modelling seen in the past. It moves the model of the coaching process on to a more holistic, adaptable and flexible representation that allows for individual interpretation to meet the contextual and domain needs for the sport, coach and learners. As one coach commented: *"It allows freedom but represents the complexity."* (C5)

General Discussion

The purpose of this study was to explore expert coaches' conceptualisations of the coaching process by engaging expert coaches in the research process. In doing so, we have developed a realistic conceptualisation and model of the coaching process that, it is hoped, coaches, coach developers, and researchers will find useful. The findings contribute to our understanding of the complex and dynamic nature of the coaching process and how it is operationalised by: (1) providing detail about the process of coaching rather than simply identifying variables that influence the process; (2) identifying that establishing coaches' values and beliefs (philosophies about coaching) is critical to understanding how the process operates in practice; (3)

596 capturing how coaches view learners as part of the coaching process, the shift in
597 leading the process between coach and learner, and how coaches solve potential
598 tensions between learners' needs and wants; (4) highlighting that coaches see value in
599 a model to operationalise what they do and that such a representation should guide
600 rather than dictate the process.
601 Despite calls to engage coaches in the research process rather than see them as
602 subjects to be studied (e.g., Cushion, et al., 2003; Gilbert, 2007; Greenwood et al.,
603 2012), few attempts to depict the coaching process have fully engaged coaches in the
604 process. In this study we listened to the coaches and worked with them to develop a
605 conceptualisation and diagrammatic representation of the coaching process. Through
606 this process it became clear that the conceptualisation and model were useful to them
607 and that they felt it would be useful to other coaches and coach developers. The
608 developed conceptualisation and model demonstrate coaches' awareness of both
609 complexity and structure in coaching and illustrates how these coaches employ
610 structure whilst remaining adaptable and flexible to work with the context of the
611 process. In essence, how they operationalise the coaching process.
612 The coaches' philosophy (beliefs) about how to work effectively with athletes
613 was an important feature of the coaches in the present study and those in Barnson's
614 (2014) study of high school team sport coaches. Barnson identified central beliefs
615 about building individual talent, team cohesiveness, style of play which influenced
616 how the coaches approached their work. Similar to Barnson, the coaches in the
617 present study believed in learner development. In contrast, however, and likely in
618 part due to the focus on individual performance rather than team and team
619 performance, these coaches' beliefs did not focus on cohesion or style of play but
620 rather focused on a learning partnership, within a structured yet flexible and adaptable

process to meet individual learners' needs and develop independence of performance. Focusing on athletes' needs has been recognised as an important feature of the coaching process (e.g., Abraham et al., 2006) and integral to athlete-centred approaches (e.g., Kidman, 2005; Mageau & Vallerand, 2003), however, few researchers, except Barnson and ourselves, have identified the potential for tension between learner needs and wants. This tension was resolved by the coaches in the present study by maintaining a focus on learning rather than merely learner-focused. This finding, therefore, supports Barnson's identification of this tension and also demonstrates how coaches solve it. Such findings can be linked to and extend research and discussion related to athlete-centred approaches which have not typically addressed this issue in coaching.

An increasingly widely held view is that coaching is characterised by uncertainty, complexity and uniqueness (Bowes & Jones, 2006; Lyle, 2002; Ritchie & Allen, 2015). How to capture and represent this is a challenge facing researchers and coach developers alike. Attempts to do so have been criticised for being too simple and presenting the process as unproblematic (e.g., Cushion, 2007; Jones, 2006; Lyle, 2002). Opposing this are those who believe models have potential to connect knowledge with practice, in this providing a template to guide coaches and coach developers, and models can bring the coaching process to life and make sense of it (e.g. Abraham, et al., 2006; Barnson, 2014; Brewer, 2007; Côté, 1995; Gilbert, 2007; Mallet, 2007). Through this study we sought to develop a conceptualisation and model of the coaching process that came from the coaches and was for coaches to assist reflection and improve coaching quality.

One of the few models developed based on coaches' views came from Côté, et al.'s (1995) study of expert high performance gymnastic coaches and was an

important contribution to representing variables that impact on the coaching process. Côté, et al.'s (1995) broad conceptualisation, however, lacked much of the detail of the process of coaching and articulates only limited appreciation of the role of the athlete in the coaching process. In contrast, the coaches in the present study, rather than compartmentalising coaching into organisation, training and competition, described a process of planning, performing (using observation, analysis, questioning, demonstrations, leadership styles), and reviewing. Thereby articulating a process which other coaches and coach developers can use to frame the work they do. In addition, rather than the athlete being peripheral to coaching, the coaches in the present study described the development of a collaborative relationship as part of a learning environment that supported learners' basic psychological needs and was founded on developing caring, trusting, interpersonal relationships between coaches and learners. The phases in the process and the coach-athlete relationship have been noted previously, however, this study is the first to capture how coaches' view them as part of their coaching process. Therefore, the coaching process described here could serve as a framework for studies that examine the relationships amongst components of the process rather than in isolation.

The coaches clearly saw value in representing the complexity of what they did. The coaches were clear, however, that the model should guide rather than dictate (Mallett, 2007), allowing them (and others) to interpret the components in a flexible and adaptable way to meet their needs for the given occasion and context. This approach shares similarities with Vygotsky's (1978) concept of scaffolding. The scaffold offers guidance to coaches on what to pay attention to (e.g., personal coaching philosophy, contextual constraints, the learning partnership, the learner's needs) and what knowledge and skills may be required and used by both coach and

learner (e.g., observation, analysis, feedback, demonstrations, questions, leadership styles). And yet, the scaffold does not prescribe 'recipes' for coaching.

Cassidy et al. (2004) suggested that more attention should be paid to developing coaches' critical thinking, which would allow coaches to develop their own processual expert toolbox. The themes and associated model this research has produced provide a framework for critical thinking. It is hoped that it will encourage coaches (and coach developers) to identify the different types of knowledge and skills they need to acquire/use in order to construct a different mental model of the coaching process for each coaching situation encountered (Côté, Young, North & Duffy, 2007). For a coach to 'critically think' and 'construct their mental model of the coaching process' they must first consider their own core principles of the coaching process, the philosophy that underpins what they do and how they do it. A critical foundation of the model in the current study was the core principles the coaches' identified which underpinned the coaching process. These values and beliefs about the nature of coaching are based on an 'educational relationship' as opposed to a 'coaching science' approach (Jones, 2007). Our findings illustrate not only what coaches do but also how and why they do what they do (Mallett, 2007; Potrac et al, 2000). Future research should seek to better understand the differing philosophies coaches have about coaching and the impact these have on the construction of the coaching process.

Limitations and Future Research

The study engaged six expert coaches from one coaching domain (kayaking and canoeing) and focused on the coaches' self-report of their coaching process. Although this provided valuable insight into how they conceptualised their process, future research might also consider other methods to corroborate the findings such as observation and athletes' perceptions. Future research should also examine the extent

to which the conceptualisation and model adequately capture the coaching process of coaches in other domains. Is it applicable and does it have the desired outcome of allowing the user (coach or coach developer) to adapt it and use it in a flexible way to model his/her coaching process within their own domains? The conceptualisation and model evolved on the basis of some agreed core principles of how the coaches viewed 'their world' of coaching. The relevance of these principles to all coaching domains and the impact of differing philosophies on coaches' construction of the coaching process would also be worthy of further research. The key concept in the application of this conceptualisation and model is the need for the user coach to critically think and from this shape the operationalisation of it to meet their needs. Although a perceived strength, this non-prescriptive approach may also be a limitation. Further research is needed to establish the value of this more holistic conceptualisation and model that aims to guide critical thinking as opposed to a reductionist based prescriptive model that gives systematic answers for the development of coaches and framing connections amongst research.

Conclusion

Through this study we sought to examine coaches' conceptualisations of the coaching process. In keeping with recommendations of others (e.g., Cushion et al., 2006; Gilbert, 2007; Greenwood et al., 2012; Jones et al., 2004) we listened to and engaged coaches in the research process. In so doing, we were able to develop a conceptualisation and model from coaches that is for coaches and coaching. It describes the coaching process as a learning partnership between coach and learner where the direction of the process is focused on the learners' needs and the leader of the process shifts between coach and learner. It provides detail about the process of coaching rather than simply identifying variables that influence the process. However,

721 the model provides a guide rather than a recipe for coaching, recognising that the
722 process is complex and therefore the process needs to be flexible and adaptable.
723 Furthermore, establishing coaches' values and beliefs (philosophies about coaching)
724 was critical to understanding how the process operates in practice. We hope that it
725 provides a framework to connect research and therefore advance the profession as
726 well as connecting with coaches and coach developers to assist them to become better
727 and provide quality experiences for learners.
728

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847 Table 1. A summary of the expert coaches' experience.

Coach	Years coaching	Years holding BCU level 5 award	Number of international paddling expeditions	Published material (books, articles, DVD's)	Years selected by NGB for technical and educational support
C1	27	17	28	Yes	16
C2	38	23	20	Yes	23
C3	30	21	20	Yes	20
C4	26	13	15	Yes	12
C5	28	19	6	No	12
C6	22	15	10	No	15

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